

A N A T U R A L,
COMMERCIAL AND MEDICINAL
TREATISE ON TEA, &c.

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By

A N A T U R A L,
COMMERCIAL AND MEDICINAL
TREATISE ON TEA.

With a concise account of the East India Company—thoughts on its government, &c.

Also, an advice as to the use and abuse of TEA, the qualities of waters, and vessels, employed in its infusion, with other miscellaneous observations.

To which is added an Appendix, recommending the distillation of fresh from salt water, on board merchant ships, by a new process.

Multum in parvo.

By GODFREY McCALMAN, Surgeon in GREENOCK.

G L A S G O W:

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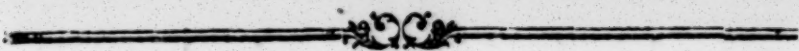
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TO THE READER.

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THE following tracts, in their complicate and miscellaneous state, have been intended, let the success be what it may, to engage the fancy, enlarge the understanding, reform the morals, preserve the health and reduce the private expences *of the people*. The language, in which they are introduced, is, in common with most writings, not unexceptionable: for every lapse of this kind *the author* solicits the indulgence of his liberal and candid readers. His aim being no less to please than benefit, self-flattery induces him to imagine, that he has

composed what in tendency is adequate to a telescope and mirror ; from looking far off or near-hand with either, no curious person can well be supposed to turn away his eyes, or, in other words, refrain from repasting his mind, by way of experiment, upon a miscellany of interesting and amusive facts, preferably to the common cry of the day, *a novel*.

A N A T U R A L,
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TREATISE ON TEA, &c.

*Countries wherein the tea-shrub grows, with
other remarks.*

THE genuine tea-shrub is a native of Japan, China, and some parts of Tonquin. These are the only countries, in which we know, it is peculiarly cultivated to any advantage.

The Japanese isles, which together form an empire, are situated about 50 leagues east of China; stretching, between the eastern ocean and the sea of Korea, from the 30th to the 41st deg. n. lat. Japan terminates the eastern hemisphere of the earth, as it is terminated by the western isles of Europe and Africa, on the opposite side; its inhabitants accordingly call us *occidentals*, just as we call them *orientals*. Those people rationally observe the law of nature, and have digested the grounds of morality into positive precepts; in this there is not much difference between them and us, only

that they are far more abstemious and sober, and that the prohibition of murder and slaughter extends among them to the brute creation. Hence, they subsist chiefly upon fish and vegetables; and this they do more, perhaps, from a principle of frugality than of superstition.

Their philosophers look upon suicide as a virtuous action, provided it is not eventually injurious to society; consequently, this theory is rather too frequently reduced into practice among their countrymen. Some compare the Japanese to the British, for that insular pride and haughtiness so conspicuous in their tempers, as well as for acts of suicide, a custom that is disgracefully characteristic of both islands. In the north end of our island, the female sex take the lead in the criminal practice of sporting thus, with both their own lives, and those of their tender children. The British philosophers have no hand in exciting such a spirit; self-murder, the blackest of atrocious deeds, generally ariseth from a religious gloom or alarm impressed on weaker minds, probably, thro' the menaces of sullen and morose books or preachings. Further, the fear of forfeiting a chaste name, of being thrown beggars on the world, or of facing a process of austere church-

censure, induce unfortunate young mothers, forgetting the human as well as the female nature, not unfrequently to cut off their newborn babes; who, alas, fall by the very hands, that, first of all others, should be stretched out to save them! *a* In the southern parts of Britain men engross the desperate practice of those self-exits, which almost always spring from strange and wild apprehensions concerning the future welfare of the back and belly, so to speak, the fear of dying beggars, or sometimes from the distraction of love. Notwithstanding the coincidence of those eastern and western isles in this moral evil, yet the latter is happily free of the natural evils of tornadoes, earthquakes, &c. that are so often and severely experienced in the former.

The great and mighty empire of China lies

a Those brutes, the pongoes in Guinea, that walk on two legs, and which, otherwise, have the strictest resemblance to mankind in shape, only of a more gigantic size; when pursued by the human savages with poisoned arrows, every female, that has a young one, at the first alarm clasps it in her arms and runs off. If the dam is shot in the chace, the young pongo is found then clinging fast with its hands about her, who, during the very pangs of death, shakes not off the sacred tie of nature.

between the 20th and 42d deg. n. lat. along the eastern ocean and yellow sea, extending, as is generally computed, 1440 miles in length and 1260 in breadth. China has almost every thing that we have, and almost every thing that we want; it produces all the ingredients and materials, it may be said, which can minister to the necessities, conveniencies, and the very luxuries of life; being every where profusely enriched and beautified either by the munificence of nature, the exertion of human invention, or the hand of industry. It is the averment of some, that this state has subsisted in splendour above 4000 years, without undergoing, during that long period, any material alterations in its law, manners, language or dress. Originally, this empire consisted of 15 sovereignties; one of the latest registers made out in those now 15 provinces, says VOLTAIRE, amounted to near 60 millions of men able to carry arms, exclusively of the veteran troops, the young men under 18, and the old men above 60 years; including neither the military nor civil mandarins. This calculation does not also take in that great body, the *Bonzes* or men of literature, and not at all the women, whose sex in every country equals in number the male, to within a 14th or 15th part.

At this rate, there cannot be less than 135 millions of inhabitants in China. Europe has not perhaps above 20 millions more; reckoning 14 in Britain and Ireland, 5 in Norway and Denmark, 6 in Sweden, 15 in European Russia, 9 in Turkey west of the black sea, Greece with its isles included, 8 in Poland and Lithuania, 6 in Hungary, 30 in Germany, 15 in all Italy as far as Dalmatia, 7 in Holland and the Austrian Netherlands, 28 in France, and 12 millions in Spain with Portugal.^a We should not be surprised, nor doubt of the population of China, provided the following story may be relied upon altogether, or even in the greater part; that, in the year 1725 a private lady, on being proclaimed empress, ordered donations to be given, pursuant to an ancient custom, to all the poor women throughout the empire, whose age exceeded 70 years. On this occasion, 142,000 of that description were found in the single province of Canton, who received a dole. In China polling becomes easy, because the number of persons in

^a These returns are in some measure, and unavoidably, arbitrary and conjectural; from the nature of the subject, indeed, strict accuracy cannot be expected, yet these, perhaps, approach truth nearest of all other calculations, hitherto made.

each family is always marked on the outer door.

DU HALDE informs us, that the map of the world among the Chinese is a square plate, the greater part of which is occupied by the provinces of their own vast empire, leaving on its skirts a few obscure corners, into which the wretched remains of mankind are supposed to be driven. Their national vanity shone conspicuously once, when an European missionary waited on a learned Chinese; says the latter, addressing the former, what literature or what science can you have, if you have not the knowledge of our books, nor the use of our letters? Men in power in China are much respected and honoured by the peasants and commoners; they are never spoke to but in a kneeling posture; subordination is nowhere more sacredly attended to than there. In the great cities, the emperor and principal mandarins are sometimes carried about in palanquins by the populace. Religion there is nothing more than the practice of the social virtues. CONFUCIUS taught that reason is an emanation of the Deity; and that the supreme law consists in a harmony between nature and reason.

One of the emperor's titles among his subjects is, *Sole governour of the earth*. Perhaps, he has some pretensions morally to be considered little less, had we so much virtue as to admire only his edict, on receiving accounts from the governour of Fourkein in the year 1782, concerning an earthquake which then happened in the island Formosa. It is my will, says the emperor, that all the destroyed houses may be rebuilt at my own expence; that such as are fit to be repaired, be repaired without loss of time; that provisions and other necessities of life be forthwith distributed among the inhabitants. I will have these my commands executed, in regard to all men, without exception. I shall not hear patiently that any one of them be forgot; therefore, I enjoin the greatest diligence and strictest inquiries. I will not suffer my subjects to entertain the least doubt of my affection towards them all. Let them know that I have every one of them present to my mind, and that my wish is to administer to their wants with my own hands, &c.

Southwest of China, the kingdom of Tonquin lies, being the n. e. corner in Further India; it is commonly reckoned 1200 miles long and 500 broad. The Tonquinese are esteemed fairer dealers than their northern neighbours

the Chinese, who are possessed of so much acuteness, artifice and chicanery that they can with the greatest ease cheat Europeans; but it is a common by-word, that none excepting a Chinese can cheat a Chinese. The necessity European merchants are under of completing their cargoes expeditiously at Canton, and to fit out their vessels before the hurricanes come on, allows no time for nicety in inspecting the produce purchased ashore; consequently they are sure to be cheated either as to the quantity, quality or price. After the goods are carried aboard, the dishonesty of the Chinese merchant is soon detected. No sooner the merchant comes for his money afterwards, than the European accosts him thus; Chinese, you have cheated me; that may be, but you are to let me have my money, replies he. Why, says the European, you are a rogue, a scoundrel, and a wretch! O sir, answers the Chinese, it may be so, but you are to pay down my money!

The inhabitants of Tonquin are so much addicted to gaming, that when every thing else is lost, they will stake their wives and children. In this they resemble the Germans of old, who imbibed such a blind passion for gaming that, after losing their all, they staked themselves.

How repugnant is this ruinous and pernicious local-disposition to the sentiments of the Arabs, who never game for money, nor any other valuable thing; and in Japan chance or hap-hazarding of this nature is prohibited under pain of death. In hard times the poorer Tonquinese, who are naturally indolent, will without hesitation barter both their wives and children for rice, pulse and other eatables; on these occasions the more affluent are lewdly in use to recruit their suits of wives and women-in-keeping. No part of the globe produces more or stronger elephants than Tonquin; there, it is common to see lords and grandees riding abroad, in rooms or galleries erected on the backs of those animals, capable to hold their families and equipage.

CAPTAIN COOK, in one of his voyages round the world, met with the tea tree in New Zealand, which appeared to MR. FORSTER a species of myrtle. This island stands between the 34th and 46th deg. lat. in the south sea.

In Paraguay, which extends from the 12th to the 37th deg. in south America, a valuable herb grows, called *paraguay*, infusions of which, from its odorous and rich quality, are drunk with pleasure by some instead of tea.

In the woods of North Carolina, about the latitude of 35 deg. a kind of tea-tree is to be found, whose leaves are sometimes plucked by the natives; which, when cured, and afterwards prepared like tea, turns out a tollerably pleasant infusion. This kind of tea the Americans call *yeoppon*; it is sold at 2s. and 2d. sterling per heaped bushel. The method they take to cure it, is by throwing a hot stone into a caskful of the green leaves, with an intention to extract their moisture expeditiously.

Some time ago, the discovery of a kind of tea was made at Labrador, which is in, and on both sides of, the 55th deg. n. lat. The northern parts of America have already substituted this in place of the Asiatic tea, where it is known under the name of *hyperion*.

It is likely, that the real tea-shrub does not grow in higher degrees than the 35th deg. on either side of the equator.

In some few gardens in Britain, it is raised in the same manner with other delicate exotic-plants. The first that flowered with us was in the duke of Northumberland's garden at Sion.

Natural history of Tea.

THE tea plant is a kind of the *single offspring order*, * in the language of botanists, belonging to the *many flowered* class of plants. † It is remarkably slow in growth, and for the most part diminutive in size; the root is black, woody and irregularly branched, and the rising stem spreads out very soon into many irregular branches and twigs. These, near the ground and at the lower end, often appear more numerous than they really are: when several seeds are thrown together into one hole, it frequently happens that two, three or more shoots spring up at once, so compact and close to one another as to be easily mistaken for one, by less attentive observers. The bark is weak, dry, thin, chestnut-coloured, firm and adhering closely to the wood; it is covered with an exceedingly thin pellicle, which being removed, the bark then appears of a greenish colour; bitter, nauseous and astringent in taste, and of a smell not unlike the hazel-tree leaves, but more disagreeable and offensive. The wood is hard, fibrous and greenish, inclining somewhat to a white colour, and of a very offensive scent when newly cut. The pith is small and fastened close to the wood;

* Monogynia.

† Polyanthea.

the branches and twigs are slender, of various sizes, irregularly beset with simple leaves, standing on quite small, fat and green foot-stalks, which, when full grown, resemble the leaves of the cherry tree in our gardens, but when young, tender and gathered for use, those of the spindle-tree, the colour only excepted. The leaves are smooth on both sides, closely and unequally sawed at the edge, of a filthy and dark-green colour, which is sometimes lighter on the back, where the fibres, rising considerably, leave so many furrows on the opposite side. They have one very conspicuous nerve in the middle, which is branched out on each side into 5, 6 or 7 thin transverse-ribs, different in length, and bended backwards near the edges of the leaves; small veins again run between those transverse ribs.

The leaves when fresh have no smell at all, and though astringent and bitterish, they are not nauseous like the bark. They vary much in substance, size and shape, according to their age, the situation and nature of the soil in which the shrub is planted, and so forth. From the wings of the leaves, the flowers come out in autumn; these continue to grow till late in winter, and are composed of 6 petals, one or more of which are generally shrunk,

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falling, therefore, far short of the rest in beauty and largeness. The footstalk of the flower is about an inch long, ending in 6 small and greenish leaves, which serve as a flower-cup.

KEMFER applied the above description to the shrub, which he alledges, produceth all the different sorts and preparations of tea; but LINNÆUS supposes this detail applicable to a particular species only, namely, the *bohea*, and to this opinion HILL assents. Certain tea plants, say they, produce 6 petals or flower leaves; hence, the brown tea comes, but the green is taken from a shrub with 9 flowered leaves; besides this distinction, the leaves are sensibly longer, narrower and of a brighter green than the *bohea*; consequently, it must be a distinct species from such as have only 6 petals.

Notwithstanding our long intercourse with China, authors are divided about the different species and real culture of this shrub. It was once universally believed, that all teas come from the same shrub, and that they are only discriminated by the different ages, gathering, and preparation. Both LINNÆUS and HILL opposed this opinion, but how

far they are right or wrong in their coalesced assertions, is beyond my opportunities to decide. The difference as to petals may however be considered dubious, at least as not invariable.

To pursue the description; within the petals, which have the most unpleasant and bitterish taste, many white filaments are uprightly placed, perfectly small, as in the wild rose, with yellow heads, and in shape not unlike a heart; in one flower, KEMFER discovered 230 rudiments*. The fruit succeed the flowers in great abundance, which are composed of 1, 2, but more commonly of 3 capsules, in bigness the same as wild plums, adhering, like the seed vessels of the royal stander-grass or great spurge, to one common footstalk as to a centre, but divided into 3 deep partitions. Each capsule contains a husk, nut and seed; the kernel or seed is reddish, firm in substance like filberts, and containing a great deal of oil; therefore, it is apt to become rancid, which is the reason why scarcely two seeds in a dozen spring when sown. The inhabitants of the tea countries seldom make any sort of use either of the flowers or kernels.

* Stamina.

Culture and Growth.

THIS perennial shrub may be propagated by the seed or slip; the seed is planted in holes 3 inches deep, this is done generally in places of a southern aspect; and stony is preferable to light or clayey ground for raising it. It must be of 3 years growth at least, before the leaves, which it bears then plentifully, are fit for plucking. In 7 years time or thereabouts, it rises to a man's height, but as it grows at that period slowly, and bears only few leaves, the natives usually cut it down quite to the stem, previously gathering what few leaves are produced. Next year, several young twigs and branches sprout out of the remaining stem, with such a multitude of leaves as will amply compensate the loss of the former shrub: some postpone the operation of cutting it down to the stem till of 10 years growth. The young plants, after being raised in nurseries, are transplanted thence, and set in rows in outer plantations; and when the soil is very fertile, to check a luxuriance, they are pruned. Upon the whole, the cultivation of those shrubs is quite simple, and according to circumstances, some kinds, doubtless, are much higher and

more fragrant in flavour than others; differing in goodness according to their age, the fertility of the soil, the exposition, and the art of culture.

In New Zealand, and likewise in North America, where the soil is immensely fine, the tea-tree grows to a considerable size in the thick forests, sometimes to the height of 30 or 40 feet, and one foot in diameter. Where the situation is hilly, and the exposure dry, it degenerates to a shrubbage of 5 or 6 inches; its most usual size, however, is from 8 to 10 feet in height, and about 3 inches in diameter. In that case, the stalk is irregular and unequal, dividing suddenly into branches, which rise at acute angles, bearing leaves and flowers only at top; these flowers are white and very ornamental. The shrubs, that are sold in flower-pots about Canton, scarcely grow an ell height; but in other parts of China, they grow to much the same height as the pomegranate and myrtle with us.

Gathering of the leaves.

THE leaves are not to be torn off by handfuls, but carefully picked one by one, and

are not to be gathered all at once, but in different months of the season. Those who pluck their shrubs thrice a year, begin the first reaping about the end of February. The plant then bears but a few leaves, which are very tender and young, and not yet fully opened, as being scarce of above 3 or 4 days growth. Those small and tender leaves are reckoned much better than the ensuing foliage; and, on account of their scarcity and price, are sold to princes and people of the first quality only; hence, they come to be called *bing* or imperial-tea.

The second gathering, and the first of those which are made but twice a year, are set about towards the latter end of March, or beginning of April. Some of the leaves are then come to perfection, while others are not half grown: both, however, are pulled off without distinction, tho' great care is afterwards taken, prior to their subsequent preparation, to separate and arrange them into classes and parcels, according to their size and goodness.

The third and last gathering, which is by far the most copious, is made towards the end of May, at the time the leaves have come to full growth both in number and size. The leaves.

are arranged then in like manner as at the former reaping, the lowest on the shrub being always found the coarsest, as most overgrown and old.

Variety of teas.

THERE are many sorts and varieties of teas, differing one from another according to the diversity of the colour, odour, taste and figure of the leaves. Teas are differently denominated from the circumstances already recited, the places where they grow, or from their several modes of preparation; but these distinctions are for the most part arbitrary. CUNNINGHAM distinguishes all the teas, which are imported to Europe, by the names of *fine green*, *common green* and *bohea*. ZIMMERMAN and others think, that there are only two principal kinds, viz. *green* and *bohea*; the small young leaves, very carefully dried, they suppose to be the finer green, the older, accordingly as they are culled, turn out the ordinary green and bohea; the two first have the flavour of violets, and the other that of roses. The former is the natural odour of the plant, says NEWMAN, but the latter is probably introduced by art; the taste of both sorts is

highly bitterish, subastringent and somewhat aromatic.

The general distinction of teas, however, is into *brown* and *green*, according as they tinge water. By the way, we are to take notice of the various appellations usually given to teas; by the Chinese it is called *tia*, except in the province of Fourkien, opposite Formosa, where the Europeans made their first landing, there it is pronounced *te*; the best tea, says DU HALDE comes from this place. *Bonam* or *Kuli-te* and *An-kay* are coarse sorts of brown tea, drunk by the Chinese themselves, but seldom or never by Europeans. *Te-bohe*, called by us bohea, is brought home in greater quantities than any other: the best sort smells agreeably, giving a brown colour quickly to the water, and consists of leaves similar in colour; if any black ones are among them, the sort is bad. *Tao-kyonn*, is the name given the best kind of bohea. *Kong-so*, which we call congo has a vast sweetness of smell, the leaves are finer than those of the bohea, and it is a kind that sells always higher. *Souchong* is the dearest of all brown teas; it gives a fine mixture of green and yellow colour to the water, and is pleasant to the taste, unless too much is put into the pot, which

spoils both taste and colour. *Padre-fouchong* is the best tea that can be drunk; the leaves are large, yellowish, not rolled up but expanded, and so packed in half pound papers, like tobacco: if this sort is not taken great care of at sea, it alters much for the worse. *Lin-kifam* is a kind with rough, and narrow, leaves, and footstalks, it is seldom used by itself, but mixed with other sorts. *Back ho* or *pecko* has leaves with dots; this kind is very mild, its taste is good, and is the least heating of any.

Green tea is also variously denominated; the imperial was taken notice of already. *Hy-tiann* is what we call hyson. *Sing-tia* or *singlo* is so named from the place it comes from. *Tio te* is rolled up like pease; a smaller kind is called gun-powder tea. *Hyofnutchin* is distinguishable from the hyson by the narrowness and shortness of the leaves. And lastly, the *go-be* is known by its remarkably long and narrow leaves.

The best and dearest tea, drunk in Europe, is that which is brought in the Russian caravans, which, once in two years, go to Peking, the capital of China. This together with every other commerce of the caravans,

belong to the empress, and therefore, it passes into other hands only in the way of presents.

Preparation of the leaves.

AFTER the new and best leaves are separated from the old and worse, with extreme accuracy, all are slowly dried and toasted apart over a fire, in large iron-pans, or in ovens, and while hot, immediately rolled, with the palm of the hand, upon mats till they become curled. After undergoing a sufficient degree of drying and curling, they are, when cold, packed up and carefully preserved from the air: in this, indeed, the whole art and dexterity chiefly consist, because the air, in those hot climates, dissipates their subtile and volatile parts much quicker than would happen in our colder regions. The coarse tea of the 3d gathering is not so easily injured by the air as the former crops; for tho' its virtues are comparatively fewer and less sensible, yet they are more fixed and permanent. The country people keep it, as well as the other sorts which they prepare, in straw baskets, constructed like barrels; which they put under their house-roofs, near the holes that let out the smoke; being of opinion that nothing

excels smoke in preserving the virtues of tea-leaves, and even in improving them. The Japanese keep their stock of common tea in large earthen jars; the superiour kind, which the emperor himself and the great men of the land use, is kept in porcelain vessels, as it is believed that these save best, nay, enhance its virtues and qualities.

The package and sale of tea, by the planters.

THE Chinese secure the finest teas in boxes made of calin, a kind of metal finer than lead, but coarser than tin; which are generally inclosed in wooden cases, the clefts whereof being beforehand carefully stopped both in and out. After the merchant purchases the brown teas in baskets, at a low rate, from the country people, it frequently lies on hand for years together, and it is very uncertain at what time or rate he shall dispose of it. When the foreigners have fixed upon a place and day to make their bargains, the baskets are emptied, and if any bad tea is found in them, it is separated from the rest, and rejected. The good tea is then packed up in new chests, and being always lined with lead, the neat weight is accordingly scratched on the inside. So soon as the chests are packed up and treaded

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by *kuleers* (or servants,) they are pasted over with paper, and carried out of the warehouse to the factory, where the custom house-officers reweigh them, in presence of an interpreter; every box is marked then outwardly with a red stamp, by a wooden instrument or stiff-brush.

The time, and route, in which Europeans first made their way by sea to the tea-countries.

EARLY in the 15th century, prince HENRY of Portugal, son to king JOHN the I. set the scheme first on foot of looking out for a south-east passage to the East Indies by sea. In the n. latitude of 32 deg. a promontory of Morocco runs into the Atlantic ocean, which till then was deemed the boundary of navigation; hence, it came to be called Cape Non. The prince however, found out pilots bold enough to double it, and advance as far as Cape Bajador, in 27 deg. lat. which projects 40 leagues into the ocean, being encompassed with rocks and shoals, that are perpetually washed by a swelling and rolling sea. Those pilots afraid to proceed further south, returned home; at a future period, others were sent out with no better success, but launch-

ing, on their return, far west into the Atlantic, they discovered the Madeira islands, this happened in the year 1418. The prince, without loss of time, took care to have those isles planted with Greek vines and sugar-canes from Italy and Cyprus, but originally brought by the Arabians from the East Indies. It is from those very canes, transplanted afterwards into the West Indies, that all Europe is now supplied with sugar and rum.

Cape Bajador struck all navigators with such a panic, that not one for a long time would venture to renew the former attempt to double it. At length, some, animated by the prince's perseverance, set out and effected that seemingly arduous undertaking; after accomplishing this, and passing the tropic, they sailed on to Cape de Verd, in 15 deg. lat. which turned out another barrier. This party stood right off then into the ocean, a great way west of the Madeiras, when both the Cape de Verd and western isles, or Azores, were discovered; the latter lie nearly at an equal distance from Europe, America, and Africa; that is to say, a triangle with its angular points in Portugal, Newfoundland, and at Cape de Verd, a little north of the river Gambia, would comprehend the Azores al-

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most in the centre. Upon a rock of the Azores, as is famed in story, the statue of a man on horse back was then seen, with his left hand upon the horse's mane, and pointing to the west with the right. This, perhaps, was a hieroglyphic monument left there by the Carthaginians, in their notable voyage from east to west Suez, round the coast and isles of Africa. How those navigators could venture as far as the western isles, away from the main land of Africa, without the aid of a compass, which was discovered by FLAVIO GOIA a Neapolitan, only in the beginning of the 14th century, should seem the next thing to a miracle, were we not to observe, that the Carthaginians understood astronomy far better than the moderns, and consequently, they always conducted their voyages and journeys by their more accurate observations of the celestial bodies.

The Portuguese, never desisting from their favourite pursuit, at last arrived at the southernmost point of Africa, but that exposed and stormy cape terrified them still more than Bajador, until

King EMMANUEL the great, in the year 1497, not relaxing in the noble and generous

scheme adopted by his ancestors, tho' the zigzag experiment of which took up already 70 or 80 years, fitted out a small squadron of 4 ships, under the command of VASCO DE GAMA. To this resolute admiral the completion and honour to double the cape of storms, then first so called, but afterwards of Good Hope, were reserved; no sooner was this effected than he bended his course straight northward, by the east coast of Africa. Thus, after sailing from the 34th to the 14th deg. s. lat. between the continent of Africa and Madagascar*, GAMA, with his squadron, touched upon the coast of Zanguebar, and there fortunately found Mahometan pilots, who di-

* This is the 2d or 3d largest island in the world, its extent to that of Britain is much in the proportion of $2\frac{1}{2}$ to one. The French discovered a new race of men there, named Kimos, the tallest of whom are not 4 feet.

The natives put such of their children to death as are born on what they consider unlucky days; this is done with so much ease and coolness as if they had been litters of rabbits or cats. The male children, who are born under lucky planets, are subjected to the old Jewish custom of circumcision. The matrimonial state of the women there, is not unlike their menial among us thus far, that the men engage and dismiss them at pleasure.

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rected him, in his premeditated course n. e. thro' the Indian ocean, till he arrived in the kingdom of Callicut in Hither India, about 12 deg. n. lat. after a voyage of 13 months. Before GAMA left Melinda, fortunately for his enterprize, he came acquainted with a Moor from Tunis, who spoke the Portuguese language, and whose prejudice in favour of that nation made him conceive a fondness for it, that overcame all his other ideas. This predilection engaged him deeply in the interest of the strangers, who reciprocally put themselves under his direction and escort. On their arrival at Callicut, the Moor had address enough to procure a favourable audience of the Zamorin, who soon proposed an alliance and treaty of commerce with the king at the side of the Tagus. This was on the point of being concluded, when some Mussulmen, who resided there, found means to throw suspicion upon the rival-power. Their insinuations entirely changed the prince's mind, so much that he resolved now to destroy those, whom he had just received so graciously. GAMA, being informed of this change by his faithful guide, sent his brother aboard the fleet, ordering him—If you should hear that I am thrown into prison, or put to death, I forbid you, as your commander, either to come to my as-

sistance, or revenge my loss; set sail immediately, and inform the king with the particulars of our voyage. But happily, thro' the timidity of the prince, matters came not to these extremities. Nothing but frowns, ill-will and resentment, at first, stared those unwelcome guests in Callicut; even in the year 1500 a pound of pepper could not be procured from the natives, but at the expence of human blood. The Portuguese coasted afterwards south along Hither India, or as it is now called, the Malabar coast, till they reached Cape Comorin in 7 deg. n. lat. Thence, they shaped their course northward again, that is, towards the head of the great and spacious bay of Bengal, where the river Ganges joins the sea, near the north tropic. This they did along the east side of the *peninsula* within the Ganges, commonly called the Coromandel coast, where Madras is, formerly the capital of our E. Indian company's Asiatic territories. Northwest of the Coromandel coast, and interiorly towards the continent, or the Mogul's empire, the Carnatic and Golconda dominions lie, and upon the bay of that name is the kingdom of Bengal. Calcutta, a town situated on the Hoogly river, or the westernmost branch of the Ganges, is now the seat of the English government in Bengal.

The Ganges, with its twin sister the Burrampooter, and their numerous adjuncts and branches intersect that country, in such a variety of directions, as to form the most complete inland-navigation that can be conceived. In its course the Ganges receives the influx of eleven rivers, some of which are equal to the Rhine, and none smaller than the Thames. The navigation of the whole, it is supposed, gives constant employment to 50,000 watermen. This large river precipitates a vast quantity of mud; a glass of water taken out, when at a height, yields about one part in four of sediment. It overflows yearly, like the Nile, fertilizing the country thereby most remarkably. The Gentoos and others hold the water of this river in the highest and most sacred veneration; it is visited every year by a number of pilgrims, and the greatest felicity, that many of the natives wish to happen them, is to be drowned therein; many are carried hundreds of miles, on the seeming approach of death, in order to swallow mouthfuls of its water, and then expire on its banks! The Bramins believe that this water can wash away all their crimes! The religion of those people, by the way, is divided into 83 sects; and it has been of old a custom among their widows to burn them-

selves, on the decease of their husbands! some other women, admiring the example, have been known to devote themselves for years to the lowest and most laborious employments, in order to raise money towards defraying the expence of this extravagant species of suicide.

It is probable, that the Portuguese failed from the Coromandel coast directly over to Further India; which comprehends the Arakan territories, the kingdoms of Pegu, Siam and Malacca. The capital of the latter is likewise named Malacca, in 2 deg. n. lat. this place is the key of the China and Japan trade, and was once the richest city in the east, next to Goa on the Malabar coast, and to Ormus in Persia. The elegance of Ormus, at that time, begged description; the pavements of the streets were covered with mats, and in some places with carpets; the linen awnings which hung from the houses, prevented any inconvenience, from the heat of the sun. Indian cabinets ornamented with gilded vases, and china pots filled with flowering shrubs, or aromatic plants, adorned their apartments. Camels laden with water were stationed in the public squares; Persian wines, perfumes and all the delicacies of the table were furnished

in the greatest abundance, and they had the music of the east in its highest perfection. Ormus was crouded with beautiful women from every country in Asia, who had been taught from their infancy in all the arts of varying and heightening the pleasures of love. In a word, universal opulence, an extensive commerce, a refined luxury, address and politeness in the men, affability and gallantry in the women, joined all their attractions to render this city the seat of pleasure. Malacca is very valuable at present to the Dutch, who are the absolute lords and masters of that whole country, having long since elbowed out the Portuguese. Those early voyagers made a stand, perhaps, there for some time, finding Malacca the great mart of the exports from China, Japan, the spice islands of Malacca, Sunda and the Philippines, and indeed of all the merchandise from the maritime nations, east of Bengal bay. The impetuous and unbounded ambition of the Portuguese, however, led them on personally to visit China and the isles of Japan, in the year 1538.

But, to resume the sequel of their initial voyage, in the first stages, GAMA returned from India only in the year 1502, and when he sailed thither again, 13 vessels, richly laden, com-

posed the fleet that failed, under his convoy, from the Tagus to Callicut. From that time ALFONSO of Albuquerque, with other brave Portuguese officers, waged desultory wars successively against the rajahs of Callicut and Siam, against the khan of the province Ormus, and likewise they engaged and defeated the sultan of Egypt's fleet. At length, ALFONSO made himself master of the city Goa in the year 1510, of the city Malacca next year, brought the town Aden at the mouth of the red sea on the coast of Happy Arabia into subjection in the year 1513, and the following year he attacked and reduced the lovely and superb city Ormus. The Portuguese, soon afterwards, formed a settlement on the island Ceylon, east of Cape Comorin; the natives of which believe that paradise was originally in that country, and their credulity leads them further to say, that a certain lake there solely consists of Eve's tears, shed for the death of her son ABEL. The Portuguese placed factories in Bengal, traded to Siam and other countries in the *peninsula* beyond the Ganges, founded the city Macao on the frontier of China, and brought the Moluccas under subjection. They were masters of the coasts of Guinea, Zanguebar, from Sofola to Melinda, lower and up-

per Ethiopia, *Happy*, *Stonny* * and *Desert* † Arabia, Persia, and the two peninsulas of India, the fine and extensive isles of Sunda, while their settlement at Macao insured the commerce of China and Japan. Throughout this immense tract, the *will* of the Portuguese was the supreme law, earth and sea acknowledged their sovereignty, while the king their master received tributes from more than 150 eastern princes; who, in other words, might be called his sceptered slaves. Thus, they settled themselves as petty princes and opulent merchants over the eastern maritime-countries of the old hemisphere. In the year 1540, their settlements formed a chain, along the coast of Indostan, from the Persian gulph to the Moluccas, an extent of 70 deg. of longitude ‡ in a direct line! Before all those extensive colonies were established, they were

* In this rugged country, the ruling passion of the men is jealousy; hence, they have recourse to mechanical expedients, to incapacitate their wives and daughters from entering upon intrigues of love.

† In these thin-peopled provinces, springs are so rare, that the possession of them is often decided by the sword.

‡ Not much under 5000 English miles.

obliged to fight, negotiate, and even after all to carry on their commerce, sword in hand. In the eyes of the Indians, the Portuguese were more than men; happily, said they, Providence decreed that there should be but a few of them, as there are of tigers and lions, lest they should exterminate the rest of the human race. This nation in the 16th century was justly admired for aggrandizing not only their own empire, but, as it were, for extending the limits of the earth.

In the 17th century, the Asiatic interests of Portugal dwindled away into an insignificance; and now other European powers have supplanted and jostled that nation almost out of Asia, except from the island and city of Goa, and a few other settlements on the Malabar coast, Diu on the gulph of Cambay, and Macao. Those people shared much the same fate that the great COLUMBUS did; who, after rendering the one half of the world known to the other in the space of 33 days, on his more than triumphant return in 9 months to the court of Spain, was made to sit down *covered* in company with the king and, his patroness, the queen, and, in few days thereafter, was appointed *high admiral and viceroy* of the new world. Every eye looked on

him as an angel dropt from heaven, and all, with one voice, declared him the tutelary genius of Spain. But, alas! such is the instability of human glory, that, the very succeeding year, thro' the aspersions and malignancy of his enemies, he was brought home in irons from Hispaniola; and died in obscurity at Valladolid in old Spain, about 14 years after the memorable 1492, in which he discovered America, seeking, from a counter-view to that of the Portuguese, a west passage to Japan! A man, successful in science, never misses the onset of detractors, and this was singularly the case of COLUMBUS; at one time he was in a company, who plainly expressed, that discovering America was perfectly easy—He called for an egg, and asked if any present could make the same to stand on end, which they uneffectually tried—Bruising the shell, he caused it to stand endwise at once—All declared that was easily done—Why then, says he, who surely was possessed of a most steady and sound judgment, did none among you think of it? How evermore inherent and rivetted in the human breast are the old principles of envy and ingratitude!

Were I allowed, as a citizen of the world, to throw out a hint here; the Portuguese,

pluming themselves up still, because of their site, should immediately set about cultivating in Brazil, the Madeiras &c. plants of tea, coffee, black pepper and other tropical productions. By copying prince HENRY's example of transplantation, they would, by and by, save a deal of trouble to the northerns, which the importing of those materials occasions now, from the other side of the Indian ocean. Just as the Venetians were left to attend their canals by Gama's voyage, so the British, by this scheme, would be allowed to pursue their fisheries, as well as the Dutch to drain their marshes. It is true, it would be difficult to bring tea-ships either out of Japan or China, owing to the natural jealousy of the inhabitants, and the strictness of their laws. The most expedient mode to attempt a secret, but justifiable, transference, should perhaps be thro' the good graces of the women there, who are in use to lavish all the favours they are mistresses of on European men. In the natural world, all things may be considered to come alike and in common to all; *nature* cannot be supposed, like a nobleman, to have particular favourites, or to be partial in the distribution of her external boons. Thus, foreigners might, among the private good-offices of their paramours, procure some tea-seed, in order to be

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immediately sown in hot-beds at their factories, or cast into flower-pots aboard their ships, till opportunities should offer for transporting the sprouts to parallel latitudes west of the Cape.

Introduction of tea into Europe.

NO doubt, parcels of tea entered the Tagus about the middle of the 16th century, in the very way that pots of sweet-meats, and Canary birds, are at present brought into the Thames. Though the pound of tea was purchased then at 1s. 3d. in the E. Indies, yet it sold in Europe from 3l. to 3l. 12s. or two Joaneses. At that period, it was looked upon a fine and out-of-the-way thing, a piece of splendid rarity, a nectar, but it came not yet to be a fixed article in trade. Its infusion, however, began to be gradually drunk among some in high life, either from an affectation of elegance and fashion, or the view of answering some medical purpose. Consequently, we may conclude, that this simple, hitherto unknown and unsought, came to be more generally used as a dietetic in the southern countries of Europe, and in course an object of impost, only towards the latter end of the 16th, or beginning of the 17th

century. We are not to be surpris'd at this, when we reflect, that it was but in the year 1583 tobacco was first imported into England from Virginia; a quarter almost at our doors, in comparison to the remote skirts of Asia. And yet North America was discovered, for HENRY the VII. by CABOT, said by some to have been a native of Bristol, but according to others a Venetian, in the year 1499. That, much tea was drunk in Britain till early in the last century is not probable. The practice of drinking it has since become general, nay, almost universal.

King Charles the II. in the year 1660, on confirming the abolition of the feudal tenures, received from parliament the excise-revenue as a gift for life; and in this act tea and coffee were mentioned. During the two or three preceding reigns, this Asiatic leaf was brought to Britain, probably, but in very trifling quantities. Catharine, the *infanta* of Portugal, afterwards queen of Britain, soon rendered its use common at court. The island Bombay was the portion that had been, in part, given with this princess to CHARLES, which he afterwards quitted in favour of the E. India-company. Tea came thereafter to be more earnestly and rapidly introduced into

this island by the lords Arlington and Offory, who thought of importing it at their own expence from Holland, about the year 1666. Their ladies in a short time brought it into fashion among the nobility, but it never came into plebeian use till towards the year 1715; then, green tea was begun to be drunk only; no other sort, except bohea, being hitherto known.

A summary detail of the E. India-Company.

THIS respectable COMPANY has been, from its first institution, invested with the monopoly of importing *tea*, now a prodigious and vast article of trade and consumpt. The first idea of erecting it was formed towards the end of queen Elizabeth's reign; in the year 1600 the plan was fixed, and the next year a fleet of four ships was fitted out under the command of a commodore LANCASTER. The first port he made was that of Achen, the capital of a kingdom of that name, in the island Sumatra, then a celebrated mart, and there he was frankly received. The scheme of the copartnership underwent afterwards many alterations. Each share or subscription was at first only 50l. and the number of those shares amounted to 7400. At the revolu-

tion in the year 1688, the success of the company was such, that the directors found their dividends would admit of tripling the old capital; consequently, each share valued in future at 150*l.* A little before this, India stock fold from 360 to 500 *per cent.*

In king WILLIAM's reign, a new company started up, who had so much interest as to procure an act of parliament in their own favour. Hence, a violent struggle between them and the old company ensued, till in the year 1702, a few months only before WILLIAM died, both were united by what was called an *indenture tripartite*. In the year 1708, a new charter was granted prolonging their exclusive privileges, under the title of *The United Company of Merchants* trading to the East-Indies. A proprietor of 500*l.* in the trading stock, of any sex or country, had a right to be a manager, and to vote in the general council. 2000*l.* property was the qualification for one of the directors; who were always 24 in number, the chairman and his deputy inclusive; and these two might be re-elected successively for 4 years. The chairman enjoyed a salary of 200*l.* *per annum*, and each of the directors 150*l.* From the year 1708 to 1756, a space of 47

years, the dividends produced $8\frac{1}{2}$ *per cent.* annually; which for 20 years past rose to 10 and $12\frac{1}{2}$ *. In April 1783, the proprietors were 1493, and the number of votes, which were then balloted, amounted to 1737.

This commercial republic has an exclusive trade and navigation to the Indian seas; which privilege it holds by the authority and sanction of parliament, under certain limitations and restrictions. Its constitution, speaking in a similitude, is a fabric composed of a head, body and extremities. The legislation represents the first, the stockholders, or corporation itself, the second, and their civil and military servants abroad form the third division. In another point of view, government is the merchant, and the company only the agent. The legislature thro' every reign, especially of late, has been exceedingly attentive to the concerns of this trading establishment, and has, at different periods, imposed wise and expedient laws on it, tending reciprocally to promote its own interest, and that of the public at large. This they wished to effect on principles not repug-

* About the year 1728, the Dutch E. India-Company drew 23 *per cent.*

nant to the maxims of natural justice, nor unfriendly to the political rights of others.

At the present time, the appointment of governour-general in Bengal, together with the commander in chief, is vested in the hands of the crown. The whole government of India, agreeably to MR. PITT'S bill, which passed into a law in the year 1784, is divided into 3 branches, *viz.* those of Bengal, Madras and Bombay. That in Bengal consists of a governour-general and 3 counsellors; the governour has the casting vote in council, and the commander has a voice and precedence next to him *.

Each of the presidencies at Madras and Bombay consists of a governour, president and 3 counsellors, and the commanders in chief have a similar precedence in council as in Bengal. Only, when the commander in Bengal happens to be on service at Madras or Bombay, he is to have a seat and voice in

* Provided the council was to consist of 5 members, the force of a casting vote would in some instances be ineffectual; but as the supreme civil and military powers are vested there in the one and same person, therefore, the council is made up of 4 members only.

the councils of those settlements, and their own respective commanders continue to have seats, but not voices*.

The management of Indian affairs, at home, is still lodged in the hands of the courts of directors and proprietors; over whom parliament has now placed a board of control, 6 in number. This new board has not only a negative on such dispatches, prepared by the directors, as they do not approve, but also a right to originate dispatches, and send them out to India without the consent, tho' not without the privity of the directors. The authority of this board is confined to the political government, the commercial superintendence being exclusively committed to the directors and proprietors; by whom the mercantile interests of the company had been administered with no disgrace to themselves, before they were entangled with territorial possessions.

The court of directors is generally composed of persons, whose feelings and senti-

* In this case, the members of the council are 6, by taking in the commander in chief, or second in command, a part from the governourship.

ments should be supposed too refined and pure to descend into mean and low measures, or into sordid mercantile-views; hence, it is not likely that the spirit of tyranny and rapine should be the most prominent features of the private instructions transmitted to their servants abroad *. The misdemeanours and evils, so loudly complained of in India, must therefore originate with the servants themselves, as the executive part of the system.

* The parliament, in the year 1773, passed an act, that no presents should be accepted by the governor-general in Bengal on any account whatever, or by any other person in subordinate authority there, under very severe penalties. After this prohibitory act was intimated in India, an honourable member observed lately in the house of commons, when impeaching MR. HASTINGS, that two lacks of rupees (25,000l.) were received by him from the prince CHEYT SING. When the company understood this, they were displeased, but when they found it was applied to their own use, their anger was turned to approbation. The surrender only whetted the governor's avarice, for soon after, he sent an armed force to compel that very prince to advance five lacks of rupees (62,500l.) more for himself!

The company knew not at first, perhaps, how the two lacks were procured, or if they thought the money was misapplied by their servant after, they had

It is true, a magistrate or commander, appointed to serve in distant countries, cannot be so much tied down by any juris-prudence as to be without a discretionary power to act by, or deviate sometimes from law and the commands of his constituents, according to circumstances and emergencies. Hence, it is more natural to rate gentlemen in supreme administration abroad, as free and absolute agents, than as children held by leading-strings. That servants should be mere machines, whose smallest movements were wound up before hand, is absurd. It is besides impossible that the same spirit should operate every where alike; the force or example of an European government, perhaps, struggles in vain against the laws and manners of the climate in Asia. It is an established fact, that change of clime contributes to alter and transform the temperament of every mind and body; in that where the body loses its vigour, to be sure, the mind must lose some of its force likewise. Experience shews, that in hot climates, there is always less dis-

reason to fret. Be that as it may, it has been acknowledged or proved, that the company and their servants received 30 millions sterling in presents from the princes in India, or from their subjects, since the war in 1757 to the year 1771.

position to probity and honesty; the present object is so much attended to, that little consideration is paid to future consequences. As there is not much reflection, every one is anxious to make the best of the present moment, regardless about what may ensue. At a great distance from home, men are no longer restrained by the fear of being ashamed at seeing their neighbours. Further, we know that the religion of the maritime nations in Asia is fraught with superstition, heathenism or idolatry; some of the ancient, and perhaps of the modern heathens, worshipped *Money* under the character of a goddess. Christians, who daily witness this, may be so far seduced as to eye it at least as a *Sovereign Power*. Tho' the first approaches to corruption and turpitude are gradual, their influence being exerted imperceptibly; yet, whenever the thirst of amassing wealth possesses the mind, and an opportunity once presents, we see it operating with irresistible and surreptitious fury.

Money seems to act with despotic influence upon the minds of Europeans, the moment they step on Indian ground. This *Despot*, so to speak, in its usurpations, controls in the cabinet and field, and the forcible ways and means, employed in gratifying himself, are

venality, oppression, extortion and rapine. His peremptory edicts are to raise up and support, whenever an occasion offers, a subject against his prince, until the former is placed in the government. Then the same person, who was but lately raised to the throne, is very possibly deposed soon again, and one of his relations or generals crowned in his stead. Whenever this new prince does not comply with such measures as may be proposed, he is immediately dethroned, and his predecessor, perhaps, restored. If the delivery of a prince in exile at a foreign court is demanded and refused, that instant it is resolved to commence hostilities against the protector, and thenceforth red-hot war is carried into the heart of his country. He, to the utmost of his power, splits and sows dissention among the neighbouring powers, saying, this double game is not only a pillar, but the grand *colossus*, of my political existence. On the death of a neighbouring prince, a collateral heir is sometimes preferred, and installed in room of the lineal. On all those occasions of investments and restitutions, an enormous sum of money is distributed by the person promoted to the sovereignty among the installers, particularly the chief in command. A refuge is sometimes granted to such natives as are afraid

of oppression or punishment at home; and for such protections, handsome requitals are duly made. The pretensions of the weak are supported against the strong, and those of the strong against the weak, as he sees expedient; sometimes the prince's part, and at other times that of his vassal's, is espoused. Provided a man of a superiour and formidable genius ascends any neighbouring throne, rivals are stirred up to run counter with, and keep him at bay. Those, who are not seducible by gold or promises, are subdued by fear. When fat doweries and patrimonies have been left to dowager or young princeesses, the same are wrested from them, or modified to scanty annuities. From nominal claimants of provinces, grants of land are taken for so much as is judged advisable to possess.

This last mode of procedure was exemplified, says a MR. PARKER, in the year 1765, when the whole revenues of Bengal, Bahar and Orissa were attached to the British, while the government was continued in the name of the young nabob, or phantom subah, of Bengal; allowing a small pension to him, and a trifling annual-tribute to the emperor, from whom they derived the supreme title to those revenues.

Some blame the legislature and them, who are besides more immediately in the direction and administration of E. Indian affairs at home, for the misbehaviour of their countrymen in the east; on the ground, granting they do not enjoin, yet, they virtually wink at offences and protect offenders. That self-preservation, or the spirit of retaliation, should enforce the necessity of violence can be no more than a bad plea on the side of intruders. Is there a man upon earth, if assaulted unexpectedly in his vineyard, and at his door, by depredators, who would not oppose the attack, and defend his property, even at the risk of his life? It is a common saying among the nations, whom we are apt to style barbarian, and savages, that wherever Christianity comes, there cometh with it *a sword, a gun, powder and ball!*

The tone of the times is, that fortune-making and the lessons of the Christian system are incompatible, not only so, but diametrically repugnant. In our days, he is reckoned a mere cypher, who puts any thing in competition with money and preferment, who is not keen to make provision for the morrow, when buffeted on one of his cheeks, makes no resistance but turns about the other, or if rob-

bed of his coat, consents to give away his cloak likewise. Those short sighted people, who cavil thus, should observe; though the fowls of the air neither sow, reap nor gather into barns, yet they are abundantly fed; they would do well to revolve in their minds also, how the lilies of the field flourish without toiling or spinning; notwithstanding our authority is too great not to believe the richest and most gay potentate on earth, in the brilliancy of his glory, was not arrayed like one of them. *Money* jaundices the eyes of the multitude, in order to be the darling instrument of sensual gratification, excess and precedence, and not the mean of plain and moderate subsistence only; therefore, we can easily conceive which is the dusky side of the question, that bewilders thousands on towards the brink of a precipice, where they are left to fall.

The Quakers exclaim against animosities and hostilities; nevertheless, they thrive and prosper in their worldly concerns, with this mild and pacific disposition. To be sure, the oddities and wildness of those people's principles are, in general, very remarkable, but as to the maxim in question, they are perfectly right, and outshine us far. It is illiberal to

imagine, because any set of men are wrong in some, that they should be so in all, things.

Delinquents on their return from India, sometimes have had their conduct investigated and criminated, tho' it never, or very rarely happens that one is punished, let his disobedience, extortions and other crimes be what they may. The culprit, upon his arrival at home, is so shielded with money, that he thinks himself in trim to parry every attack: his nest is so warmly feathered and strongly fortified, that he is sure to weather every storm. There is some analogy between his case and the story of the sparrow, which lighted once upon a nest, built not long before by a martin with the utmost sagacity; the sparrow, observing the same to be exceedingly fit for her own purpose, took possession of it. The martin, alarmed at what the usurperess had so illegally effected, applied for assistance to have her expelled; an hundred pretended friends duly appeared, but the uncommon dazzling and flashing of her large beak, at the entrance of the nest, mystically repulsed all the besiegers, perhaps by its *effluvia*.

One of the kings of Persia once asked a Portuguese ambassador, just arrived at his

court by Goa ; how many governours his master had beheaded, since the establishment of his power in Asia, he received for answer, none at all. So much the worse, replied the monarch, his authority cannot be of long duration, in a country, where so many acts of outrage and barbarity are committed with impunity.

An extension of the E. Indian trade, by discontinuing it in the hands of monopolists, and laying it open to British subjects at large, is a topic that has been much agitated. But, we would have to fear worse consequences from the new, than from the old, system, provided the present frame of this commercial establishment was deranged or dissolved, and then to fall piece-meal into the hands of straggling private-companies or individuals. In that case, government would be perpetually loaded and harassed with the defence of our Asiatic dependencies both by sea and land, and with furnishing convoys to out and in-ward bound merchant-men ; besides, what labour it would be to assess, levy and collect taxes and duties over the immense coasts of India, Britain and Ireland, which converge at the present time, almost spontaneously, into one revenue-mass in London ? Private merchants, at any rate,

could not advance such capital sums as become requisite in this trade, nor ly so long out of their money; because in it, reimbursements are to be expected only once in 3 years. It is to be considered, that one third of the price of Eastern goods is paid down the moment the work is bespoke, which is perhaps a year before hand, the next moiety when half finished, and the rest on delivery. Tho' individuals were privileged, yet their interest, together with the nature of things, would soon induce them to unite in one and the selfsame partnership, particularly in order to preclude the danger of rivalship in the purchases or sales, the necessity of assortments, and so forth. Above 50 different agents, residing at a vast distance from each other, are now employed to contract aforehand for a single ship's cargo. Owing to these several reasons, the prodigious time that voyages take up, and many other material circumstances, this vast undertaking is only to be compassed by public, but never by private, societies, or individuals upon their own bottoms. On the other hand, if the question was to be decided on general principles, it could in that view be easily resolved. It is well known, freedom is the very soul of commerce, and we are sensible that competition awakens industry; yet, for upwards of

a century, practice has constantly confuted those principles. All the nations of Europe trading since to India, carry on their traffic by exclusive copartnerships.

Over and above, we would, most probably, have cause to suspect the private conduct of merchants and seafaring-men, if at liberty to rove in distant seas. Sailing under false colours, paying no respect to any flag, smuggling, piracy, and every thing that is bad, would be practised in peaceable times; and in times of war, many of our seamen, who of late have discovered too much of a mutinous and robbing disposition, would jump away a privateering and buccaneering; and from the basest motives fall a plundering, and butchering innocent traders upon their travels. Imagine only tygers endowed with a little reason, and then you have some idea of the crews of buccaneers; alas, their wretched creed is, that, *whatever is practicable is just!* Not only so, other runagates and out-laws would be busy, supplying clandestinely the avowed enemies of their king and country with arms and ammunition, say, it were to kill themselves next day. There is too much truth in what Christians are frequently charged with, that they, most of all religious sects, discover

the strongest passion for money. To the shame of some British merchants it is mentioned, by the way, that their infamous trade to St. Eustatius, in the late war, will remain for ages, a blot on the calling of *merchant*; fy, at the critical period their brave country had to cope at once with 13 revolting provinces, and almost with the rest of the world in arms besides! The seizure and confiscation of British property in that Dutch island, February 1781, by admiral RODNEY and general VAUGHAN, would have probably, in remoter times, been accompanied with fire and sword. Those, concerned in that ugly trade, cannot be supposed to be lineally descended from the *Britons*, who gave JULIUS CÆSAR such a red hot reception upon the coast of Kent; as little they can be sprung from the *Caledonians*, who afterwards marked out limits to the arms of Rome. No, we are rather to suspect, they are the offspring of the fustlers, who followed the Roman camps.

Another instance, that counteracts every principle of humanity, is the traffic of the *human species*, together with the tyranny exercised over negroes, in the subsequent steps and stages of their slavery. We have the face to talk concerning the law of nations, and, forsooth,

to tell them that they are men, who, in common with ourselves, are to participate in the redemption of JESUS CHRIST; after all, we employ them as beasts of burden, only worse fed and more severely punished. The Dutch and Spaniards, among all others of the Christian persuasion, made the most unconscionable strides in cruelty, to gratify their abominable avarice. Examples of a most deep die are, the massacre perpetrated by the Dutch at Java in the year 1740, when 30,000 Chinese were surprized and destroyed in cold blood. The barbarous murder committed by another set of them, first in torturing and then killing the English at their factories in Amboyna and Banda in the year 1622, is a tragical event, tho' it must be remembered as an unparalleled piece of atrocity, yet stands to this day neither redressed nor revenged. OLIVER CROMWELL, indeed, procured a disavowal of this affair at home, and insisted on an indemnification for the descendants of the unfortunate victims, but this slipped over, without being ever enforced. About sixteen years thereafter, when the Japanese perceived that the avarice of the European settlers in their country had run too high, they resolved to have them expelled to a man out of their dominions. The incomers, understanding this, embodied

themselves, with a resolution to die in arms rather than be foiled in their ambitious views; however, they were soon routed, excepting a few, who retreated into a fort on the sea coast, which had been formerly in their possession. By that time, every foreign ship left the country but one, commanded by *Kokbeker* a dutchman; him the Japanese hired to cannonade the fort, where the unhappy Christians were cooped up; the *wretch* agreed, and assisted in that piece of sad service till the besieged were entirely cut off!

The inhumanity exhibited in the conquest of Spanish America exceeds any thing, of this nature, that we can possibly take a retrospect of. The Spaniards seldom failed in giving the name of some saint or other to every country which they seized, and then to cut the throats of the natives in the name of that saint. After COLUMBUS retired, the succeeding governors of Hispaniola and Cuba, suspecting the natives for concealing where the richest gold-mines were to be found; nothing less than the final extermination of those ill-fated people was deemed adequate to the disappointment. The fury of this slaughter, once begun, was unmatched! In a few years Hispaniola, containing millions of humane, harmless and

hospitable inhabitants, was depopulated, as well as Cuba, that is said to have been inhabited by half a million. Then the cruel Spaniards went out with dogs to hunt men; who, in a half-naked and defenceless condition, were pursued as deer into the thickets, and there either torn and devoured by hounds, or fired upon, under circumstances, when every gun must have told, while others were pent up and burnt in their hovels!

To resume the account of our E. India company; it is thought that both their territorial and mercantile incomes, at this time, amount to neat L.4,000,000 annually. According to Mr. Dow's calculation in the year 1766, the very revenues of Bengal came to near one million and a half sterling yearly, clear of all the expences of both civil and military establishments. The amount of duties on the goods imported by the company, the impost of 5 *per cent* on the rough produce of their sales, with the sum of L.400,000 paid into the hands of government, as an acknowledgement for the patronage, protection and grant of territories given to them in Asia, form a yearly revenue of L.1,460,000 to the British treasury. Their capital, or united funds, some say, valued at 677 millions of pounds sterling,

in the year 1767; while others, snarling at this as an exaggeration, reduce their stock to 422 millions. Government is unfortunately under the necessity of regarding the customs as a resource of finance, rather than a thermometer of its commerce. Thus, it comes to be more accurately ascertained, that the Asiatic imports of goods yearly amount to L.1,500,000, and the exports only to L.900,000; of course, the balance against Britain falls out to be L.600,000. It is said, that the company the very last year, sent even to China, either from home or their settlements abroad, the sum of L.700,000 in specie, along with L.300,000 worth of woollen clothes; the whole of their usual exports in specie and bullion to Asia is commonly computed at L.1,090,000.

The exports, besides silver, consist of every kind of woollen manufactures, all sorts of hard-ware, wine, ginseng *, quicksilver. The imports, besides *tea*, are (or may be,) diamonds, turcoises, pearls, various stones and gems of immense value, tortoise shells, cow-

* The Chinese are so fond of this root, that they think it is impossible to pay too dear for it.

ries *, gold, amber, ivory, ebony and other precious woods, drugs, spiceries of all kinds, perfumes, colour-gums, beautiful varnish, indigo, salt-petre, coffee, sugar, dates, arrack †, wrought and raw silks, muslins, calicoes, chints, gold brocades, tapestry, Morocco leather, shagreen, porcelain, lacquered ware, paper, Caramanian wool ‡, nanking and various other cotton-stuffs, with all the woven manufactures of India. Some of these articles are re-exported, in such quantities, to different foreign nations, as more than compensate the loss of what silver is sent, in the first instance out of this country.

From these extensive sources of revenue, trade, &c. both masters and servants in this concern have arisen to an amazing height of

* Cowries are a kind of shells, that were used as coin of old in China.

† Arrack is a sort of fine brandy procured from the vegetable juice toddy, which flows, by incision, from the cocoa tree; an inferiour kind is got from rice, syrup and some parts of the cocoa, which after being fermented together, are subjected to distillation.

‡ It is a remarkable circumstance, that regularly in May, the fleece, of its own accord, drops off the goat, which produces this wool.

prosperity and affluence. People, however, are to observe that wealth, at an overgrown pitch, seldom fails to be attended with a redundancy of luxury, and that this, like a gross corpulency in the human body, may be the forerunner of an approaching decay. The ancient queen of the ocean Tyre, Carthage and Corinth, fell victims to the vices, which their opulence had introduced. Commerce may be finally undone by the riches it accumulates, as power is sometimes destroyed by its own conquests.

The list of shipping, employed in the Asiatic trade, is great; beside the company's own, a number of chartered, ships are sent out, generally from 700 to 1000 tuns burden. The coast and bay, as also the coast and China ships, are absent for several years; because their destination is not to run out and in expeditiously, but to trade from place to place; all, however, return directly home from China. The principal port frequented there is Canton, where it is said, one merchant supplied Europeans last year with teas and raw silks to the value of L.1,100,000. In December 1786, 46 sail of British shipping, belonging either to the mother-country or her colonies, lay in Canton and Maken harbours, when

8 more were daily expected; 5 Dutch, 6 American, 3 French, 1 Portuguese, 2 Swedish and 2 Danish E. Indiamen lay also then at Canton.

The company's servants, at Bengal and on the Coromandel coast, carry on a clandestine trade to Malacca, in their country ships, which is connived at by the Dutch governour and council. It is certain, whatever tea is brought hither by that conveyance, it must become musty, and lose, as it were, its race and primitive fragrancy, by the time it is used among us. In the first place, for ought we know, it may be brought to Malacca from the most interior parts of Japan, over 2400 miles by sea and land; thence, as far or further, by the time it arrives at the Cape; the distance again between the Cape and the northern tea-marts is a space nearly equal to the half of the globe, where, after being landed, it may happen to lie by in cellars for years. The case is otherwise, when tea is imported directly from China; a ship from London to the river of Canton finishes her voyage out and in generally in 9 or 10 months, exclusive of the time she lies waiting a cargo, which may be 5 or 6 months.

After clearing the Cape, the outward-bound China ships shape their course right for the straits of Sunda; there they pass the island of Sumatra, bearing northward, where we have two settlements Bencoolen and Fort Marlborough, whence the principal cargoes of pepper are brought. This place produces so much gold, that some conjecture it to be the Ophir, mentioned in scripture, whither SOLOMON sent his fleets. The equator divides Sumatra into two parts; therefore, the inhabitants are always under a perpendicular sun. The rites of marriage among the Sumatrans consist simply in joining the hands of the parties, and pronouncing them man and wife. With us, courtship includes the idea of humble intreaty on the man's side, and favour with a condescension on the part of the woman, who bestows person and property for love. The Sumatran, on the contrary, when he fixes his choice, and pays all that he is worth for the object of it, the obligation might naturally be considered on his side; yet, a degree of delicacy and respect is always shown by him to the fairer sex. In that country, mothers carry their nursed children straddling on the hip, by mean of bands, as they do in Wales; but, the defensive armour of stays, and offensive weapons called pins, might be an objection

to a general introduction of such a fashion into Britain: when cradles are made use of, they swing, suspended from the ceiling of the rooms. Both sexes in Sumatra grind down their teeth, almost even with the gums, or shape them like pyramids by a whetstone, and then they are dyed jet-black. The great men sometimes incase the teeth of the under-jaw in gold, with a plain hoop of that metal fixed round the gum: this contrasted with the black dye, has, by candle light, a very splendid appearance. They bore the ears of the females about the age of 9; this they call *betenday*, as they call filing the teeth *bedabong*; both which operations are regarded by the family as the occasions of a festival. The children of Europeans born there, are, and continue, as fair as those born in the country of their parents; which shews that the difference of skin-colour is not an impression of climate. The fallow and tawny complexion, acquired by Europeans in hot climes, is more ascribable to the effect of bilious disorders, than an exposure to the sun; hence, many are led to conclude, that the phenomenon of colours arises from the more or less profuse secretion of the bile, or perhaps, from the quality and genial hue thereof. A tree of extreme singularity grows in that island, termed

the banyan tree; it possesses the uncommon property of dropping fibrous roots from the boughs, which, when they touch the earth, become new stems, and go on increasing to such an extent, that some have measured in the circumference of the branches, upwards of 1000 feet, and have been said to afford shelter to a troop of horse. A banyan tree, about 20 miles west of Patna in Bengal, is represented by travellers to measure 375 feet in diameter, and its shadow at noon 1116 feet round; the circumference of the several stems, 60 in number, are 921 feet. Under this tree sat a naked Fakir who they add, occupied that situation for 25 years; but he did not continue there the whole year through, for his vow obliged him to lie, during the 4 cold months, up to his neck in the waters of the river Ganges.

The China outward-bound ships, on the other hand to the s. east, pass Java: the superb and magnificent city of Batavia is the capital of this island, where the Dutch governor-general of the Indies resides. His appearance on public occasions once equalled in splendour and state that of any king in Europe; this pomp, however, is now mostly laid aside as useless and troublesome. The

Dutch E. India company monopolized the importation of tea from Batavia in former times, but that is now left to private dealers, over whom their government still keeps a look-out. The tea, which the Batavian merchants send to Holland, seldom misses being of the worse sort. Their junks bring 2000 Chinese emigrants annually to Java and the isles of Sunda, who come thither in hopes of making their fortunes; these vessels carry back, among other things, the fins of the shark, and certain members of the male fags, (not mentionable with decency), which are esteemed among the delicacies of the table in China. The out-ward bound ships continue their course thence towards the equator, when they pass Borneo at east.

This holds the most conspicuous rank of all the islands in the world, next to New-Holland; that is to say, provided the latter is not a continent; its extent is computed at 800 by 700 English miles. The Jocko is a native there, which is an irrational animal approaching very nearly to the human form, and corresponds much with the pongo in Guinea. It's structure differs from the wooly Chacrelas and the grotesque Hottentots only by a slight deviation in the figure of the lower part of

the body *, and the conformation of the feet. The Borneans call this brute *the wild man*, †, LINNÆUS names it *the man of the night* ‡, but if people are resolved to humanize it, *the man of the woods* §, appears to be the most applicable name. In this and some of the adjacent isles, the inhabitants dwell in houses erected upon large piles of wood, which are accessible only by ladders; those very ladders must be pulled up at night, for a further security against the invasion of venomous and ravenous animals. Camphor is extracted from a tree, of the laurel tribe, growing in Borneo; this gum is much used among the Mahometans, as they can never think of burying one of their dead, without putting a piece of it into his mouth. East of Borneo, between it and the Moluccas, is Celebes; the native inhabitants of this island acknowledge no other deity but the sun and moon. According to their creed, both were eternal, as well as the heavens, whose empire the two divided, but ambition setting them afterwards at variance, the moon was obliged to fly, when she miscarried, and was delivered of the earth!

* Pelvis.

‡ Homo nocturnus.

† Orang-outang.

§ Homo sylvestris.

A ship bound for Canton river at last passes the Philippine isles, stretching on the east hand from the 5th to the 20th deg. n. lat. and then the great gulph of Tonquin opens in a n. west direction.

The company has four public sales of tea every year at home, nearly at equal distances of time, when such quantities are put up as are judged sufficient to supply the public demand; and since the year 1784, the first purchasers have always paid a duty of $12\frac{1}{2}$ per cent. on those teas. At their first four sales tea was put up in the following manner; bohea at 1s. and 7d. congo at 2s. and 5d. fou-chong at 3s. and 3d. singlo likewise at 3s. and 3d. and hyson at 4s. and 11d. a pound. It is illegal to set up teas at prices that shall, on the whole of what is so exposed at any one sale, exceed the prime cost, with the freight and other charges of importation, together with the lawful interest from the time of its arrival in Britain, and the common *premium* of insurance. The company is obliged to send orders abroad from time to time for purchasing such quantities, when added to the stock in their warehouses, and to the quantity already ordered, though not arrived, as shall amount to a sufficient supply for keeping, always before

hand, a store equal at least to one years consumption, according to the sales of the preceding year.

A quick correspondence with India hinted.

AS the idea of a n. west passage from Europe to China is now almost dropped, a more expeditious scheme to forward dispatches, tho' not any merchandize, to and fro between the southern nations of Europe and the East Indies, should be devised, than by the circuitous course of the Cape, or of Bassora. The most convenient way is by Marseilles, Leghorn or Venice, to Alexandria; thence, to Suez, and down the red sea to Anjengo and Bombay. The space, in which a journey to Bombay may be performed, travellers have calculated at 10 weeks. The voyages for the most part would be within the tropics, where the winds and weather are so uniform and regular as any natural revolution can be; even, in the Mediterranean, the only part, where the winds are liable to most changes and varieties, they are seldom known to blow long between the s. and east which is the only point of the compass unfavourable to vessels, bound from Italy or France to the Levant.

The objections made by the Turks to travellers going thro' Egypt, might be easily removed. The Grand Seignior or the Sherreef of Mecca, it is presumable, so far from offering the smallest obstruction to packets, would on the contrary give the subjects of European powers passports to proceed by sea and land thro' their dominions, provided they were to carry nothing along but papers, or a few small bundles. A person, accustomed to travel, would with ease arrive at Alexandria from London in 21 days; that is, supposing that he had previously determined what route to pursue to the Mediterranean, and that he had also ordered a vessel to be prepared at the intended place of embarkation. The n. and west winds blow during the whole summer in this sea; therefore, the passage at that season from Marseilles, Leghorn or Venice to Alexandria, in a good sailing vessel, seldom exceeds 15, and is sometimes accomplished in 10 days. From Alexandria he could get to Suez in 7, thence to Anjengo in 21, and to Bombay in 23 days more. Thus, after allowing 6 days to reach his port on the Mediterranean, the whole journey between London and Bombay would be got over in 10 weeks and 2 days at most.

The messenger who brought the news of queen ELIZABETH's death to her successor at Edinburgh, in March 1603, after every exertion in his power, took 10 days to his journey from London. A stage coach, 25 years ago hobbled for 15 days on the road between those two capitals, whereas the mail-coach runs it now in $2\frac{1}{2}$ days. Comparatively it may be supposed that a journey to Bombay may come to be finished yet in a shorter space, than is here foreshown. And the argument requires no enforcement, that every mode of quick intercourse, between the parent country and her colonies abroad, should bid fair to promote the connection and dependency of the latter.

The principal objections made to the voyages and journeys between India and Britain, by the way of Suez, are the expence, danger and inconvenience attending them. The expence would be but trifling to all those European powers, now at peace and apparent amity, who have vast possessions and properties in India, to establish a regular packet between Marseilles and Alexandria, and another between east Suez and Bombay; where a general European post-office should be fixed to dispatch and receive mails once at least in three

months, to and from the different western nations, and either over land or by sea, to and from the eastern countries. Each nation should have an agent at east Suez; whence the Indian packet might return the moment the western dispatches were shipped, that is to say, if the wind answered; and our western couriers might set out immediately with the eastern-mails. The navigation of the red sea is so tolerably well known now, that it can no longer be considered dangerous; the winds usually blow there from the n. and south and being periodical like the monsoons in India, this invariably determines the point of time to fall into, or out of that sea. In more remote times, vessels of great burthen, and in fleets only, sailed at certain seasons from here to America; whereas now, skiffs of small tunnage venture thither singly at all times. The Mahometan merchants carry on a constant trade, between Hither India and Mecca in Arabia, in vessels called junks and grabs; one of those floating castles, beside her dead-weight cargo, will carry 1700 pilgrims at once, up and down the red sea, when about visiting MAHOMET's tomb.

As to inconvenience, there is hardly one, that might not be removed by mean of a little

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money, properly applied. In passing the road between Alexandria and Suez, some embarrassments may occur; these, however might be mostly avoided by giving away few presents of no great value to the Beys of Egypt, and so procure passes or perhaps an armed escort. In all the Arabian and Turkish countries, especially near the city of Mecca, in order to avoid insults from the populace, a Christian traveller should allow his beard and whiskers to grow, and wear always an eastern dress; in winter *apellis*, indeed, is both useful and ornamental. Neither should he ever wear green clothes at any place in the Levant; for green is a colour deemed sacred to those, who have made the pilgrimage to Mecca, and to the descendants of the prophet of prophets; nor do the Turks love to see a Christian dressed in red, which was MAHOMET's favourite colour. A person of character may have credit the whole way on this journey, for draughts on Britain or India. However, a supply of ready money is preferable; the Venetian chequins * answer best in company, as being both very portable and quite current, in every country along that line.

These digressions, tho' of much affinity with our main subject, must be left off.

* 9s. 2d.

The dietetic and medicinal use of tea.

IN Britain, *tea* makes at present a large part in the diet, and at the same time in the convivial pleasures of many classes among the people. We are equally charmed with it, as some of the Indians are with the leaves of the betel. Among them, it is a breach of manners to take leave for any long time without presenting each other with a bundle of betel, that being accounted a pledge of friendship, sufficient to alleviate the pain of absence. None speaks to a superiour, without having his mouth perfumed with betel. The women of fashionable gallantry are most lavish in the use of betel, considering it an incentive to the blandishments of love. Betel is taken after meals, betel is chewed during a visit, betel is offered at meeting and at parting, in a word, nothing is to be done without betel.

A vein of idolatry seems to be congenial with the culture, importation and consumption of tea. The ancient, and so far as we know, the modern Chinese worship material objects *; the Japanese, at the same time are

* When LORD ANSON was waiting an audience of the vice-roy at Canton in November 1743, a prodigious fire broke out there. On the first alarm, he

represented the grossest of all idolaters. The Dutch, being the only European nation that trade now to Japan, it is said, in order to humour the natives for their own selfish ends, deny, nay, abjure the Christian persuasion. And tea, in its last and consumptive stage, is regarded by ourselves to a violent pitch of fancy, that borders on idolizement. This Asiatic leaf, tho' not without its inconveniences, may be considered on the whole an innocent species of luxury; it has been found very agreeable and beneficial, particularly to the sedentary and studious; hence, it is emphatically stiled *the poets friend*. There are few vegetables employed in food, which when used with moderation and judgment are better, or more safe and pleasant than tea.

Some ask how it happens, that the sobriety of mankind in the torrid zone, and adjacent latitudes, can dispense with the multitude of

began to assist the inhabitants to extinguish it; but they warned him, as there was no mandarine present, who alone had authority to direct on those occasions, he would be made answerable for what houses he should order to be pulled down. Hereupon his men desisted, and in the mean while the Chinese contented themselves with looking on, and holding up their *idols* near the flames, which they expected should check their progress.

aromatics and stimulants, which have lately become so necessary to the luxurious taste of the northerns? The superfluous phlegm in the temperament of the latter is obviously the cause: in northern sites, a coarse and heavy animal-machine, naturally in a vapid, and approaching a torpid state, finds pleasure in whatever is apt to rouse and agitate its spirits; namely, in travelling, dancing, fencing, hunting, war, the use of spiritous liquors, tobacco, *tea*, coffee, foreign spiceries, and pungent home-grown substances, such as onions, radish, &c.

The colour, strength, activity, temper and health of the inhabitants, in every country, depend much on the state and temperature of the soil and sky. This truth is well known to those, who trade for slaves to the African coast. The negroes they purchase there are dull and stupid, lively and ingenious, sickly or robust, long or short lived, and so forth, according to the nature of the country and air, whence they are brought.

On the extension of the fire, after consuming 11 streets, LORD ANSON was desired to take any measure he thought most prudent to stop it; accordingly, he a second time went to work with 40 of his men, by whose exertion the fire was soon suppressed.

In the year 1766, no less than 6,000,000 lb. tea were imported by the British, 4,500,000 by the Dutch, 2,400,000 by the Swedes, an equal quantity by the Danes, 2,100,000 by the French, and 1,050,000 by the Portuguese; quantities, when added together, that amount to 18,450,000 lb. The preference given, thro' the continental countries of Europe, to coffee, chocolate and other liquors, joined to a series of observations carefully pursued for several years, with the minutest calculations that could possibly be made in such complicated cases, induce many to conclude that the whole annual consumpt of tea throughout Europe, exclusively of Britain and Ireland, does not surpass 6,450,000 lb. consequently that of this empire must be 11,000,000 lb. The quantity consumed by us is certainly far beyond this; for admitting that 5 millions, out of 14 millions of persons*, drink tea, and that once only, and seldom twice, a day, we may suppose, without being wide of the truth, that each spends 4 lb. a-year; therefore, 20,000,000 lb. must be had some how or some where. The mystery still increases, if we advert that a deal of this commodity is, besides, exported from here

* See page 13.

to the W. Indies, N. America, and other parts. The price of the different kinds may be computed at an average to the last purchaser at 5s. *per lb.* accordingly the rage after this exotic drink costs to us 5 millions of pounds sterling every year, and its sweet co-ingredient as much if not more *. Between the

* *An annual tea-bill to Britain.*

Directly	{	To 20,000,000 lb. tea at the mean price of 5s. <i>per lb.</i> - - -	L.5,000,000
		The tea and window commutation tax, by supposition - - -	100,000
Collaterally	{	To sugar, honey, mo- lasses, &c. sufficient to sweeten the above quantity of tea, by a rough calculation	5,000,000
Indirectly and casually	{	To the late increased interest of the public debt - - - -	4,500,000
		The loss of 30 Trans- atlantic tributes -	30,000
		Duties on American im- ports and exports -	60,000
		The saving of 10 pen- sions, valuing each at 5000l. - - - -	50,000
			<hr/> L.14,740,000

years 1775 and 1783, that is, during the course of the late American war, the national debt swelled from 137 to 253 millions of pounds sterling, i. e. in a sum of 116 millions. The interest and agency of that increase amount annually to near $4\frac{1}{2}$ millions sterling, which are raised from us in taxes. The eventful and fatal infusion of $28\frac{1}{2}$ chests of tea, in the spring of 1774, in Boston road, lost the superiority of 15 American provinces fortuitously to Britain; which, with the scraps of cold and inhospitable territories preserved there still, might have been formed, by a forecast in the cabinet during the unsuccessful administration of LORD NORTH, into 30 kingdoms, principalities and dukedoms. Now, let us suppose, that those new realms were erected dependant and tributary for ever to Great Britain, and their sovereignties given occasionally in lieu of pensions to princes of the royal blood, and to some distinguished subjects, who had served their country in the senate or field with matchless abilities and gallantry; such as the late earl of Chatham, Lord Hawk, and the present Lord Heathfield of Gibraltar. This to take place under certain limitations, that in case the crown of Britain was to fall in succession to any of those royal princes, or their descendants, he

should then resign his American sovereignty ; or if some of those princes and nobles should happen to die without male issue, or be naturally incapable to reign, &c. in any of these cases, their grants or tenures should have been transferred at the pleasure and by the appointment of our king and parliament. In the course of every century 10 states might thus return, perhaps, to the mother-country, which would in fact lighten it of as many heavy pensions. At the same time, an exclusive trade with our crowned-vassals might be attached; and in the event of being obliged to take an active part in their public or private quarrels, to be indemnified by subsidies in all our warlike expences. But ceasing to recite the public burthens superinduced by tea, let us attend to its virtues, injuries, uses, abuses, &c. in other respects.

An infusion of brown tea is esteemed softening, nourishing and serviceable in all those complaints, which have the aspect of a decay; this sort undergoes some mode of preparation, that takes away its raking qualities, and gives a deep colour to it. Green tea is known to be diuretic, it carries an agreeable roughness into the stomach, gently astringes the fibres, and gives so much tensity to them as is requi-

sive towards promoting digestion. An improper or excessive use will no doubt render this, or any thing else prejudicial: wholesome and sound tea, taken in a moderate quantity, refreshes and exhilarates, owing to its stimulating quality. *Opium* till very lately was supposed to operate upon, or affect, the human body, as a substance peculiarly possessed of a soothing and quieting virtue. The most eminent physicians concurred in this opinion, till the present DR. BROWN of Edinburgh began to consider the matter more maturely than his predecessors or contemporaries, and the result of his experiments is, that *opium* acts rather as a *stimulant* on the nervous and muscular parts of the human body. All authors, who wrote upon tea, agree to its being a narcotic, belonging to the natural order of—* which universally produce stupor; therefore, we are to conclude its sedative effect ariseth from stimulation, and that it acts in the very manner coffee, *opium* and spiritous liquors do; DR. CHEYNE informs us, the Turks are in use to employ coffee and *opium* instead of brandy, to intoxicate and make themselves cheerful. From this view it is contended by some, that the energy of the nervous system,

* Coadunator.

together with the tone of the muscular fibres, are diminished by tea, as it were, inducing a considerable degree of sensibility and irritability. Others declare, the thinner evacuations are very powerfully promoted thereby; therefore, it cannot miss to reduce the flesh and bulk of people when used to excess. Such effects tend to impair strength, and forward the other consequences on the nerves already taken notice of, hence, many actually believe, that tea enfeebles and enervates so far, as to introduce several disorders, which seem in a contracted sense, to proceed from laxity and debility alone; and still worse consequentially making way for the relish of spirituous liquors, which are often drunk to relieve the depression which it occasions.

Some writers have been really led to imagine, that this leaf produces consequences highly prejudicial to society. If it injures the health by crushing and breaking down the temperature of our bodies, it must be ascribed eventually as one cause towards corrupting the morals of the people. Its affection on the nerves, perhaps contributes to abate the vigour, courage and steadiness of the mind; circumstances fully sufficient of themselves to dissuade them from its use, who are engaged

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in any line of life requiring resolution and much exertion. In the hot climates of China and India this liquor may not be so hurtful as in the more cold; there, it may tend to abate the weariness produced by heat, and as a grateful diluent promote the thinner evacuations, which probably may counteract its injury by making it pass off quickly. If tea is taken in a recent and high flavoured state, and in a considerable quantity, weakness and tremour succeed; the noxious qualities of the leaves, when fresh, are well known in the countries, wherein they grow.

DR. FALCONER observes, the Japanese are very much subject to the *diabetes*, and the consumptive disorders, which resemble an atrophy, from the frequent drinking of tea. The Chinese are so sensible of this, that they very rarely drink green tea at all, being most apt to excite such complaints; therefore, bohea is in more general use throughout the empire, but green is always presented before visitants and foreigners. The narcotic quality of the fresh and unprepared leaves is destroyed in a great measure, by the gradual and repeated toasting they undergo; this operation renders them at the same time exhili-

rating and cheering, and in the opinion of many, cleansing and attenuating.

KEMFER remarks, tea is particularly serviceable in washing away the tartareous matter, which is the efficient cause of calculous concretions, gravel and gouty disorders: he affirms among all the great tea-drinkers in Japan, he never met with any, who were troubled with the gout or stone.

The Asiatics in general, but above all the Chinese, extol the wholesome and medicinal virtues of this plant. The latter prescribe it always in cases of nervous weakness, headach, drowsiness, lethargy, asthma, palpitation of the heart, heart-burn, indigestion, involuntary movement to stool, flux, hæmorrhoids and numberless other ailments; besides, they add, that it renders the body active and elevates the spirits, but it is well known, how extremely partial the inhabitants of China are in respect to every thing, which originates in their own country, and enthusiasts see things always in a false light. The virtues ascribed to tea are abundantly numerous, tho' perhaps few of them have any just foundation. Little more can be expected from the ordinary infusion, than from a diluent, acceptable to the palate and

stomach; its virtues consist, perhaps, merely in custom, and all its harm in excess. The diuretic, diaphoretic and other qualities, for which it is so loudly celebrated, may depend more on the quantity of warm fluid employed, than on any particular quality gained from the tea.

It cannot be denied, says Baron HALLER, but tea occasions a degree of gaiety and liveliness for some time. This is the reason, why I recommend a moderate use of it to people in health; it likewise suits travellers and others, who are obliged to expose themselves much to cold and dampness, as it quickly removes the weight and lassitude, usually produced therefrom. In what, may we ask, consists the intrinsic advantage of this leaf? BOERHAAVE tells, it is only in the warm water, but a physician must be nothing else than a sangrado, who imagines warm water will be of utility to every stomach. HIPPOCRATES, the great father of physic, instructed us, that the too free use of warm water softens the flesh, weakens the nerves, occasions hemorrhages, renders men stupid, and sometimes brings on palsies, syncope and death. Thus, tea is hurtful in various respects from the manner in which it is used, whether we attribute the virtues or evils of the beverage

to the leaf itself, the fermentation of the sugar, or the hot water. Some reckon strong green-tea an emetic, and yet they commend the same in hystERIC and hypochondriac affections, in which its ill effects have been indisputably experienced.

DR. ZIMMERMAN in his account of tea thus goes on; I will not insist on the assertion of the celebrated LINNÆUS, that all the plants which resemble the tea-shrub are venemous and deleterious, because I know several ladies in Switzerland, who drink warm water only with sugar and cream, and they feel the same advantages and disadvantages from this beverage that others do from tea. LINNÆUS was of opinion, we had to fear only from the use of new tea; this rule, however, can only be applicable to the countries where the plant grows, when drunk in a fresh state there, it always excites intoxication in some degree. This is the reason, why the laws of those nations have determined, how long tea should be kept before it is made use of. A difference in the temperature of climes is, perhaps, what produces such consequences, thus, the same indulgence in drinking spirituous liquors, which may be necessary to stimulate the blood

in Norway, would be enough to make an Italian mad.

There is something exceedingly penetrating in the nature of tea, adds the doctor, and it is well known, after frequent blood-lettings, nothing begets a wan and pale complexion sooner than it. We had a gentleman in Switzerland, who in every respect knew how to assume the tone of majesty; one day he was told, nothing elevated the dignity of a prince so much as when every object round him had a pale look. This hint was enough, thenceforth, he directed all his servants to be blooded once a month, and obliged each of them to swallow 50 dishes of tea every day.

When I studied at Gottingen, continues the doctor, I was accustomed to drink tea in the night with an intention to prevent drowsiness, which had so complete an effect that at the end of two years after I pursued this method, both sleep and strength had forsaken me, and my head was as weak as my stomach. Among my patients since, I sometimes observe it rendering the pulse slow and weak, and that taking too much latitude with it creates flatulency, hysteric and hypochondriac affections, tremors, palpitation of the heart, vertigo,

vapours, whites and even deep melancholy. One of the fair sex was known to DR. FRIEND, who had an incontinence of urine, and afterwards a suppression of the monthly courses, brought on by tea. Some drink it very hot for coldness at the stomach: I know one, in that way of thinking, at Zurich, who is constantly with a tea-pot in his hand, and this is done with an intention to warm his stomach, the consequence is, that he is extremely flatulent and liable to cholics. Some physicians tell their patients, they have got cold stomachs; such coldness appears to me an extreme degree of relaxation, which may be attributed in a great measure to tea. Our Swiss ladies being such slaves to it, accounts why that female disorder, the whites, is equally general in this country as in Flanders and Holland. Sometimes I succeed in curing the disease now mentioned, by employing every thing which is contrary to the effects of warm water, such as barks, chalybeates, and tonics in general.

The Asiatic method of preparing tea.

THE Japanese have a peculiar way of preparing tea for their repasts, by grinding down the leaves and reducing them by a hand mill,

made of a dark-green stone, named serpentine, into a fine and delicate powder; which, when mixed with hot water and stirred about, as we do with chocolate, till it frothes and becomes a thin pulp, is then sipped without sugar. This is called *thick tea*, to distinguish it from the simple infusion, and is sipped every day by the more opulent people in Japan. The poorer classes of the Chinese boil the coarse and inferior sorts in large quantities, in kettles, for common drink. Persons, in higher walks of life, drink the finest kinds, prepared in the same manner as in Europe, only they use no sugar in it; the Tartars are the only set of people in China who mix it with milk. Tea-cakes are sometimes made in that country, which sell very high.

Substitution and sophistication of the genuine tea.

IN the account of the Dutch embassy to China, it is related the Chinese poor drink moss-infusion instead of tea; others are satisfied with the leaves of a species of buck-thorn, which they put into clayey water, in order to become more palatable. By the by, the water thro' that whole empire is not only unwholesome, but absolutely nauseous, and after

all the methods hitherto tried to better it, none succeeds so well as tea. Several medical gentlemen, on account of the exorbitant price of this leaf, when first introduced into Europe, pointed to many substitutes; viz. mugwort flowers, the young leaves of saffron and the floe tree, groundivy, wild marjoram, arctic bramble, male speedwell, wild germander, Mexican sweet-blite, goatweed, &c. The propensity of smugglers and hawkers to adulterate the true Asiatic tea is well known; they have particularly reduced to a regular manufacture the management of ash and alder leaves, which, when prepared, they term *smouch*; this is always mixed with the genuine teas, in the proportion of one third or fourth. To what extent the trade, in that sophisticated article, has been carried on to the detriment of trees, may be imagined, when the reader is told, that an act of parliament was within these few years obtained, prohibiting this practice, under a very severe penalty. A reference to the taste and smell, after a close inspection, will discover, that clover and other grass leaves, properly assimilated, enter sometimes the compound! Others purchase old tea-leaves, after being carefully dried and toasted a second time, for mixing with the genuine bohea, but they take care to be-

sprinkle them beforehand with a turbid solution of catechu, or Japan earth.

The European method of infusing tea—the theory of infusion.

WATER, as the direct solvent of gums and salts in general, readily extracts the gummy and saline parts of all vegetables. Most aromatic herbs, as well as the bitter and astringent, yield the greatest part of their smell, taste and salutary virtues to this fluid. Water too imbibes in part the flavour even of the pure essential oils, and odorous resins, of vegetables, separated from their other principles; and by the artificial admixture of any gummy or saline matter, the whole substance of the oil or resin is rendered soluble in it. It unites almost unlimitedly with gummy substances, and heat expedites this action, tho' that does not enable the water to take up more than would happen by allowing it and the solvent to stand together, for a longer time in the cold. Experience shews, that dry vegetables give out more of their active parts than when in a green state, water seeming then to have little or no impression on them. There are certain vegetables, whose volatile and odorous

parts exhale by being exposed to too much heat; hence, the Chinese prefer drying tea-leaves expeditiously, tho' gently, in pans and ovens, in order to preserve a lively colour and fine flavour, which would have been much impaired by a slower mode of drying in the open and warm air.

The natural colours of many vegetables are communicated to water along with their medicinal matter, some impart colours different from their own, and others, tho' of a beautiful and deep die themselves, hardly give any to the solvent. Of the first kind are the yellow and red flowers; of the second, the leaves of most plants, and among the last are the blue flowers. Infusions loaded with too much of the active parts of any substance, for instance tea, are equally if not more improper as those, that scarcely favour of them at all. A mean and middling strength in the tea beverage is most beneficial; therefore, a certain given quantity of water may contain in a small compass the finer, more subtile and essential principles of the leaves, and that in a form which renders them more readily miscible with the fluids of the human body. Long maceration, or the application of violent heat may occasion the grosser and more ungrateful

parts to be taken up, consequently, this liquor becomes more or less disagreeable and nauseous. When captain Cook's people drank the New Zealand tea, at the first infusion it had a pleasingly aromatic and fine flavour; but that went off at the next filling up of the pot, and a great degree of bitterness was then extracted. Indeed, a skilful management as to the choice of water, application of fire, ascertaining the proportion the infusing fluid should bear to the infused leaves, the time the latter should be steeped, the quantity of the additional to be used, the vessels employed in the process, &c. are circumstances worthy of our attention, in extracting the finer, and no more than the finer and nutritious, principles of tea, which alone, when preserved from injurious externals prove so light and grateful as to sit easy and comfortable on the stomach.

Choice of water.

WATER congeals into a transparent and solid body, at 32° of Farenheit's thermometer, and in every degree of heat above that, it is found to be volatile. The different kinds, commonly known among us, differ from one

another only in having various and dissimilar substances blended therewith, from which when perfectly freed, all waters become the self and same thing. The most effectual method to free water from any extraneous bodies is distillation; but if water is actually putrid, it cannot be rendered drinkable even by simple distillation; in that case, the addition of lime is necessary. Feculent, such as clayey and moorish, waters should be boiled, and then exposed to the open air, till it is occasionally employed. When water is muddy and foul, a small quantity of common alum added, will render it clear, transparent and somewhat hard. Water scarcely ever continues for two moments exactly of the same weight, owing to the quantities of fire and air containable therein. The expansion of this fluid in boiling shews, what effect different degrees of heat have upon its gravity; the purest and lightest that we can procure is supposed to be 880 times as heavy as common air.

Hard water is described to be such as will not entirely dissolve soap, producing in the combination a greyish curd, that floats among the leys. The reason of this is, because hard water contains some kind or other of acid,

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perhaps, the vitriolic, which may be imperfectly neutralized with some alkali present in the earth. On its application, therefore, to soap, the alkali of the soap deserts the oil, and unites more readily with the acid of the water.

Rain, and *snow* waters may be looked upon, as it were, a pure kind of distilled water; but as it is always impregnated, in its passage thro' the air, with inflammable and putrescent matters. Hence, it is inferiour, for domestic purposes, to spring or river waters.

River or running water is in purity next to snow or distilled waters, and for dietetic uses superiour to both, as possessing less putrescent matter, and more fixed air. Such, however, is to be chosen as runs in a clear and rapid stream, thro' a rocky or stony channel, in preference to what run slowly and in great bodies over mud, clay, peat or moss ground, which cannot miss to be mixed with the more minute particles of the intervening substances.

Putrid water is what has acquired an offensively fetid smell and taste, by the putrefaction of animal or vegetable bodies, some how com-

bined, during its stagnation in ponds, or close confinement in subterraneous aqueducts and reservoirs; under these circumstances, water cannot be supposed to be replete with fixed air, which is its most salutary and antiseptic ingredient. Putrid water is pernicious, in the highest degree, to the human frame, even the smell, is sometimes so noxious and contagious as to be capable of bringing on mortal diseases. Water keeps sweet for a longer time in stone or earthen-ware pitchers, than in vessels made of wood; hence, as a ship's company at sea can only be supplied with water kept in wooden casks, seamen are always subject to those diseases, which plainly arise from putrid food. This might be partly obviated by throwing a little quick lime into the casks, for when water is impregnated with lime, all putrescent matters in it are either totally destroyed, or altered in such a way as never to be capable of undergoing the putrefactive fermentation again: a continued use of lime water, nevertheless, could not fail to prove hurtful. Filtrating-stones, on board of ships, should be more frequently made use of.

Medicinal water is generally impregnated with iron, dissolved in the aerial acid or fixed air. Fixable is heavier than common or vital

air, therefore, it unites more readily with plain water, and this mixt dissolves iron, thereby forming chalybeate springs; the same as the famous ones of Pyrmont, Spa, Bath, &c.

Sea water is a solution of common salt, Epsom salt, a substance approaching the nature of moon-stone, and a compound of the marine acid with magnesia, joined together with fresh water in various proportions. It is of a purgative quality, owing to the various salts contained therein; it has been greatly recommended in scrophulous and strumous complaints internally, and externally applied, salt water is more efficacious than fresh, by reason of its less specific gravity and superiour coldness. The credibility of this proposition, my experience in prescription has long ago put out of doubt with me at least; thence, however, a palliative rather than a radical cure can only be expected.

Spring water is much esteemed on account of its coldness, particularly in the hotter seasons; but as it is usually hard, that which runs briskly in the channel of a brook is preferable in other respects. Springs rarely dry up in summer, or freeze in winter, so that animals never want a wholesome and refresh-

ing drink. In summer they are abundantly cold, the whole surface of the earth being then in a conducting state of electricity, but in winter rather warm, the surface being always, during cold, frosty and snowy weather, in a non-conducting state; consequently, springs become then hot wells, giving ready ingress and egress to the electric matter to and from the bowels of the earth.

Sulphureous, bitumenous, arsenical, with other deleterious and mephitic, waters are to be guarded against more strictly. When the inflammable principle of sulphur is combined with any alkaline or calcareous earth, it dissolves in water; in which case the water smells disagreeably like the scourings of a gun, or putrid eggs. Bituminous stuff runs from the crevices of rocks, old caverns, and in some parts even from the solid bowels of the earth, impregnating the contiguous waters. Pit-coal is never free of sulphur, this last is sometimes a natural fossil by itself, and mixtures of it and arsenic are not unfrequently discovered in the same body *. When water is so polluted, tho' it does not apparently and instantaneously prove fatal; yet, tremours,

* Matrix.

palsies, pining hectics, decays, swelling, wens, king's-evil, mortification and other miserable affections ensue. Subterraneous waters assume not only various qualities but colours; in Peru are springs that tinge an adjacent river red as blood; and it is remarkable, waters are met with in other places, which in their course change into stone. Rivers are to be seen in China, whose water is yellow as the tincture of saffron, and others blue as a solution of indigo; there too are some lakes, which petrify fishes the moment they are thrown in.

The Scotch are more callous in their organs than their neighbours the English, as to the qualities of water; so delicate is the tone of the latter's fibres, that it is confidently said, invalids among them can perceive, both in drinking and bathing, a palpable difference between the water of one sea-coast and that of another.

Both the European and American dominions, belonging to the crown of France, are extremely well supplied with fine water; where this is not naturally the case, it is effected by the help of engines, and other mechanical inventions. At the time the acute and clear-headed French were forming settlements

first in the W. Indies, they laid it down as a maxim to seize upon the best watered islands, *viz.* Martinico, Guadalupe, Grenada, &c. leaving such as appeared almost destitute of that natural blessing to other nations.

We wish, men of superiour rank and fortunes in Scotland would not pay so much attention to the forced culture of exotic plants and fruits in hot beds or houses, become less solicitous concerning storing their cellars with tropical wines, relinquish in some measure expensive travels abroad in quest of foreign notions about men and things, as well as cease from the baneful custom of gaming high. And instead of such giddiness and eccentric follies, that they should bestow some more pains, among several other objects of patriotic reform, upon the refinement and rectifying of waters from unkindly and malignant admixtures, a thing so necessary towards preserving health and existence to themselves, families and neighbours, wherever any local hardship of this kind must be combated. The rich in China do more; some of them build places of shelter upon the public roads for the conveniency of travellers, while others plant trees along the road-sides. Such actions are proofs of the most benefi-

cent humanity, rather than fallies of ostentatious generosity.

Boiling of water for tea-infusions.

THE degree of heat, in which water boils, and the degree of cold in which it freezes, are the two standards, or fixed points, for determining the increase and decrease of heat and cold in all fluids. Quicksilver, put into a glass-tube of an equal bore, is seen to expand or contract, just as the heat applied is either greater or less than that of boiling or freezing waters. Whenever water, in a kettle simmering over a naked fire, arrives at the boiling point, we see it then beginning to play or bubble at the surface, the noise of this fluctuation is even perceptible to less than a musical ear; and if the kettle is closely covered, the expansion of the water, in a short time, occasions it to run out at the spout. Tea-water should be slowly brought on to boil, and this is not to be urged, because by a contrary management the finer parts go off in steam. *

* ————— The virgin stream,

In boiling wastes its finer soul in air.

ARMSTRONG.

The proportion of water, and space of time, requisite to infuse tea.

SUPPOSE a company of 4 persons are sitting down to tea, the landlady or her substitute should take a pot, holding precisely an English pint and a half, or 6 gills; after toasting its inside before the fire, 4 heaped tea-spoonfuls, being a quantity nearly equal to half an ounce, of tea are to be put in, with a gill or 4 oz. boiling water. In 15 minutes after, the pot may be filled up, in 5 or 10 minutes more the infusion served out in cups, and the pot then refilled. If each person drinks no more than 3 cupfuls, admitting that every cup contains a gill, the pot, therefore, is to be helped the third time with 2 gills only, taking always care, never to stir about the leaves by a spoon. Provided two or more strangers join the company unexpectedly, another suitable pot is to be employed, or the present one emptied, and to proceed uniformly as before.

The additional usually combined.

SUGAR and milk are commonly taken with tea; people, in my opinion, err in the

quantities they add of these ingredients; a dram, or the 8th part of an ounce, of refined sugar is sufficient to sweeten a cupful, and a single tea-spoonful of cream, or good milk, makes its astringency quite reconcileable. If more of either is added, the natural relish of the tea is lost, and a composition of water, sugar and milk might have done as well, had it but an outlandish name. All beauty consists in proportion and harmony, and all pleasure in their perception.

Vessels employed in the process.

COPPER tea kettles should be employed, on no account, in boiling water. This metal is constantly converted by the air into a substance, similar to the verdegrease produced by vinegar from it, being a pale-green and downy rust; which, if taken internally, is often followed with fatal consequences. Besides, water is of such a penetrating nature, especially in a hot and expanding state, that it will impregnate itself with the impure and poisonous principles of the containing vessel. It has, by digestion, the power of corroding the hardest bodies, even glass itself, and this it does more effectually when assisted by heat;

it is found the most penetrating of all the elements, after fire, and the most difficult to confine, so that a vessel, thro' which it cannot pass, will retain every thing, the fiery fluid excepted; it is even hardly retainable in glass-vessels, or the most solid metal. An experiment was once made, at Florence, of water shut up in a gold box and then powerfully pressed with a prodigious force, when it made its way thro' the pores of the gold; thus, the most dense body in nature is really permeable to water. It is considered far more fluid than air; air will not pass thro' leather, as is evident in the instance of an exhausted receiver covered therewith, whereas water exudes with ease; the former again may be retained in bladders, while the latter oozes thro'. It is acknowledged, in one word, that water will pass thro' pores ten times smaller than air can. Tho' a copper-vessel is tinned, yet this supposed improvement is generally executed very imperfectly and superficially, and should it be otherwise, the remedy is no better than the disorder; for tin, in its original state of ore, and even in a more refined shape, seldom fails to be incorporated with more or less arsenical particles, which are quite soluble in water. At any rate, a fused and slender pellicle of tin, upon the inside of a copper dish,

cannot be of any further use than to exclude the aerial acid in part, and so prevent its action on the dish when empty.

The purer pot-metal kettles, cast now at Carron, are, beyond doubt, the best vessels known for boiling water. Some object to them, but my own observations and experience enable me without hesitation to say, that if they are not perfectly and unexceptionably clean and pure, yet that they are incomparably the most free of noxious qualities. Nay, in a medicinal respect, they, when untinned impregnate water with chalybeate virtues; than which there is nothing more likely to alleviate the bad effects, which plasy and tepid draughts of water may have on the stomach. Some ingenious artist should construct portable furnaces, or chafindishes, of a similar metal, to suit those kettles; the furnace to be no larger than is necessary to receive the bottom of the boiler at its brim, to stand on short feet like a common kitchen-pot, with a goblet handle, having a square aperture of 2 or 3 inches near the bottom with one or two small ribs fixed therein, and on the opposite side towards the brim, near where the bottom of the boiler rests, a hole and short funnel. This furnace may be oc-

caſionally filled with kindled charcoal, half-burnt peats, or the cinders of pit-coal, and then placed near the kitchen or dining-room grate; in this manner, water may be brought gently to boil, and kept ſimmering ſo. Such a method of furniſhing hot water appears far leſs frightful, than the preſent faſhion of tabling down huge kitchens before companies. The rich can have their tea-water boiled in glaſs alembics, fixed in ſand-baths; whence it can be occaſionally drawn by cocks.

The tea-equipage of the table ſhould totally conſiſt, the very ſpoons incluſive, of the fineſt china-ware or porcelain, that can be procured. It is a pity, the Britiſh glazed porcelain was not in greater eſtimation, inſtead of that coarſe and unwholſome kind of ware *ſtone*. Tea infuſion is by no means to be drunk, by perſons of prudence or taſte, out of diſhes, capable to communicate their bad quality to it, or which by their own poroſity can harbour the rejectable and baſer quality of tea. Tea-leaves ſhould be always kept in white or green wide-mouthed bottles, preferably to metal caniſters.

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How much tea should be drunk, at one diet, in respect to health.

THE author of the *Tchang-Seng*, and the *Ling-Fi* direct, that tea should be drunk in small quantities only, and never fasting. CRAAMEN and BONTIKOE, two Dutch physicians, who in the last century wrote in favour of tea, rather indeed of the dutch E. India company, maintained that the blood was in the highest state of perfection, when in the greatest degree of fluidity, and that with such blood there could be no disposition to disease. BONTIKOE affirmed, tea should be drunk to the quantity of 100 or 200 cups a day, as a preservative from every distemper; and he pretended, that might be practised without the least injury to the stomach. This notion, however chimerical, was soon adopted to a degree that it came to be drunk without moderation, with a design to thin the blood, or rather to augment the dividends of the company. BOERHAAVE happily arrested the progress of this whim, until a stop was put at last to the ravages it occasioned.

No greater quantity should be drunk at

one diet, than from the half to the whole of an English pint. Young females, and weak persons of either sex, should not drink, perhaps above two cupfuls, suppose that each cup was to contain 4 oz. or a gill; matrons and others in the prime of life may drink about three cupfuls, and in particular cases, that is to say, to allay thirst, to increase breast milk, to make up scanty meals, to remove lassitude and fatigue, or on any other pressing occasion, 4 cupfuls can be drunk. Any thing exceeding these respective quantities may be deemed extravagance, not to say debauch. While great tea-tiplers censure one for making free with spirituous liquors, another for snuffing too often, and a third person for allowing his nails to grow overlong; might not their butts return the compliment for another species of excess and habit? Moreover, temperance must be an established rule with people wishing to retain health or lengthen life, and the best way to cultivate this is, surely, by observing regularity and statement in timing their diets, modifying the quantity, and adverting to the quality thereof. SIR CHARLES SCARBOROUGH's advice to the dutchess of Portsmouth was; *Your Grace* must eat and drink less, or use more exercise, or take physic, or be sick. People, in affluence and ease,

fee physicians on the same footing as they hire laundresses; to whom their linens are sent to be cleaned, only in order to be dirtied again. It is by no means advisable to drink tea oftner than once or, at most, twice a day; an incessant tippling of any liquor, say it were water, subtracts both from its pleasure and benefit. Tea is to be drunk always milk or blood-warm, and never hotter; DR. CHEYNE observes, that unless it is drunk warmer than the blood itself, it can do no harm.

Economy in using, and a substitution of, foreign tea advised.

IN an economical view, how laudable a resolution it would be of those, who are entrusted with house-keeping, to see and pursue a method to make the tea-store of 9 months, according to the former run of consumption, suffice for 12. A certain father, counselling his son as to the qualifications of a wife, expressed his sentiments thus; if she is not frugal, and what is called a good manager, piquing on her knowledge of family-affairs, and laying out money to the best advantage, let her be ever so sweet-tempered, elegantly accomplished, or graceful in person,

a man of your slender fortune has no business with her. I was once at a wedding, when a motion was made to pass an hour at the pastime of *pictures and mottoes*; the bride began, addressing the bridegroom, who readily gave for his device—*A yoke of oxen*—and for his motto.—*Let us draw equally*. As the one party has the whole burden of getting money, there is nothing more incumbent upon the other, than to observe strict frugality in order to preserve it. Your mother, subjoined the sage, hit on this art; her dress, table, and every thing else appeared rather splendid than otherwise; yet, good housewifery was the main spring of all; her bills were a fourth less than many of the neighbours, who hardly enjoyed cleanliness or decency in return for their show and flow of prodigality.

The folly of the poorer classes is to be more particularly regretted in tampering with this infusion at all; because, they cannot afford to purchase the wholesome materials, nor proper vessels to prepare them in. In lieu of this favourite drink, let them be satisfied and solace themselves with such things as providence and *nature* are pleased to put otherwise in their way, *viz.* milk, butter-milk, whey, beer, mead, ale, which if too acid, or bad in

other respects, may be warmed and a little sugar added; also, infusions of barley, oats, beans, pease, wheat, rice, rye, toasted first like foreign coffee, (which is no more than a pleasant kind of horse-bean), along with butter or lard in a frying-pan, and prepared afterwards with sugar and milk. These make up grateful and nutritious cordials; in the list of substitutes we may further include broth, thin soup with or without meal, beef-tea, barley-ptisan coloured with milk, milk and water boiled with sugar, water with toast and a little spirits or wine, sweetned or buttered gruel, fassaphras, lemon, orange, apple and floe teas, the cold or warm infusions of wormwood, chamomile, peppermint, thyme, sage, balm, ground-ivy, with a multitude of other simples, tedious to enumerate. Provided home-produce was employed by people in ordinary circumstances, it would save, for other purposes, the money expended inconveniently on foreign superfluities. China, Jamaica, the bake-house, the dairy, the poultry or fish-market, with the seasoning shop, must all combine now to furnish a chambermaid's breakfast! The pulses of luxury and fashion, with an itch to be neighbour-like, nay, to press with forward vanity on superiours, are inundations, whose tides waft thousands beyond

the latitude of a snug competency, to the cold and squalid coast of *want*. The secret, indeed, of owing more than a person is really possessed of, and subsisting just as if he owed nothing, is a dexterity of the human mind, peculiar to the present age.

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A P P E N D I X.

An easy way to render sea-water fresh, whereby ships companies at sea can always be supplied with fresh water.

A METHOD of procuring fresh water at sea has been considered by many as a requisite towards perfecting the art of navigation. DR. JAMES LIND, in the year 1761, first discovered that salt water, simply distilled without any additional ingredient whatever, produceth fresh. His object, however, was not to water ships in that manner, but in case of their running short on voyages, in order to save people from distress, it was recommended by him to have recourse to that expedient. This, to be sure, was a benevolent and humane motive; yet, the Doctor did not favour the public with a practical detail, how to conduct the process in the various and embarrassed circumstances a ship may be conceived to be often, upon the tempestuous

ocean. Thus, tho' a still is fixed on board a ship, it is to be enquired how the cooler and it are to be fastened, how the water in both is to be secured from spilling, during the jerking and rolling of the ship, in coarse and boisterous weather, how the cooler is to be occasionally emptied of hot and supplied with cold water, and so forth? Besides, newly distilled water is not fit for use, unless it be afterwards improved; water, by undergoing a process of distillation, acquires a burnt and empyreumatic smell and taste, and thereby loses its most wholesome ingredient, namely, fixed air. Towards obviating some of these objections, the Doctor simply directs an exposure of it to the open air in broad and shallow vessels. But how can this be managed a ship-board, for the reasons already assigned, tho' it could be easily done ashore? Hence, the discovery has been hitherto little more attended to than an useless piece of theory. Provided the company of a ship could safely proceed to sea without casked water at all excepting a few days provision, but to be supplied totally from distillation, what profit would arise thence to merchants! Not an owner of a ship in Europe but should thank the man, who even in part contributed to reduce this theory into practice.

If we are to suppose that a ship is about setting out to the W. Indies from Britain with 40 seamen and passengers; the quantity of water usually furnished for the expenditure of each person on board, is about 80 English gallons; that is to say, a computed allowance of half a gallon every day, for the space of 11 weeks or thereabouts, over and above what is expended in cooking the victuals, leakage and other waste. Now, if owners, in this instance, could avoid purchasing, say, 35 of those water-casks, and save thereby room for stowing other goods, how capital the advantage would be.

Off the forecastle, and sidewise near the prow, of any ship, a small apartment of 6 by 4 feet, in the form of a round-house, might be constructed, partly above and partly below the gunnel, and laid out so as to hold a still of 30 gallons, or one that measures 19 inches in diameter. This will yield 80 gallons water in the space of 10 or 12 hours, attended with the expence of one tun of coals or so, laid in additionally with what would have been done at any rate for the common purpose of a vessel about to sail to the W. Indies. In case this quantity of fuel should be found short, the stowage in the hold, some of the carpen-

ters stores, junks, pieces of old cables, &c. can make up the deficiency. The apartment must have room also for a worm-tub, or cooler, of 2 feet width, a couple of buckets or calabashes and a place for the operator. The tub is to be fastened to the floor or platform by iron-spikes, and joined by a worm and pipe, in the usual manner, to the still-head, only that the pipe is to arise from the top, and not from the side of the still-head, and twisted in such a way, that the water in the still cannot run thro' the worm, during the most untoward motion of the ship. The still is to be incased in a brick-furnace, with a funnel to carry the smoke away over the gunnel; the tub and it, so fixed, will relatively partake in the general motion of the vessel, without any contrary movements either among themselves, or in respect to that of the ship. The cooler must have a well-fitted copper lid, and be occasionally filled with cold water from the head pump, by a leather-pipe extended from the pump to the edge of the tub, and there joined to a metallic pipe, descending to near the bottom, where it enters the tub with a curve. By this mechanism, the cold water introduced at the bottom will always supplant the hot towards the surface: a little below the edge of the cooler, a second metalline

pipe is to be fixed in another quarter, in order to convey the hot water down into the trough that is placed below the still-cock, to receive and carry off all useless waters at a scupper hole. To assist the condensation of the steam, the still-head as well as the pipe may be wetted now and then with mops. In the year 1771, MR. IRVING proposed an alteration in the method of distilling sea-water, by substituting, in order to condense the steam, a large and open pipe, kept constantly wet with mops, instead of the slender pipe passed thro' a tub of cold water, in common practice among distillers. For this, which appears at least to me no more than a troublesome method, he had the good fortune to procure a reward from parliament.

The first running from the worm is to be thrown away, and then about two thirds of the remaining contents of the still are to be gradually drawn off fresh. Every bucket of distilled water is to be emptied into a cask, placed on a bed, or lashed on deck near the mainmast: 5 casks should be so situated, with something in the form of a wind-sail brought from aloft and joined below to leather hoses, to be in a temporary manner introduced into the bung-holes, whereby the water may be

faturated with fixed air from the atmosphere,
 and the empyreumatic taste so far diminished.
 To co-operate, one of the ships boys can be
 employed for an hour or two every day, at
 working up and breaking the water with a
 broom. The first cask, emptied after leaving
 a harbour, should be filled with artificial fresh
 water, a ventilator clapped on, and, after stand-
 ing so for some days, used then in rotation.
 This is purer than spring, river, or rain wa-
 ters, perfectly sweet, incorruptible, and pre-
 servable with all its properties and qualities
 for many years.

The same process recommended to freshen
 water at sea, might be also beneficial to the
 inhabitants of sea-port towns, which are na-
 turally ill-watered, such as those of Antigua,
 Curassou, St. Eustatius, together with various
 other maritime towns and parts, here and
 there, throughout the world.

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